5.0 A/V Controller
Owner's Manual

CITATION®

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Citation®
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H A Harman International Company
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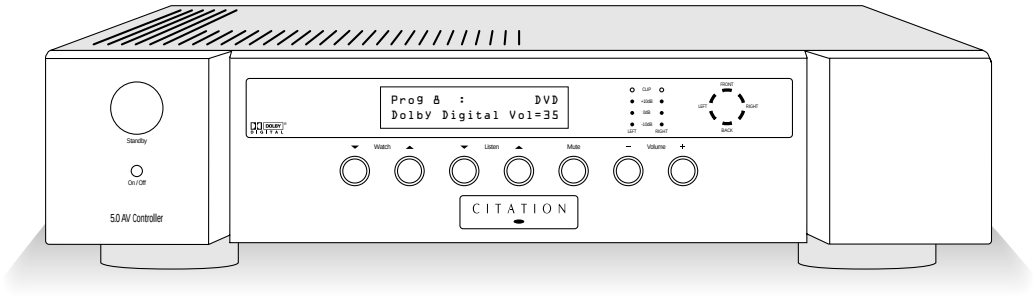
Introduction

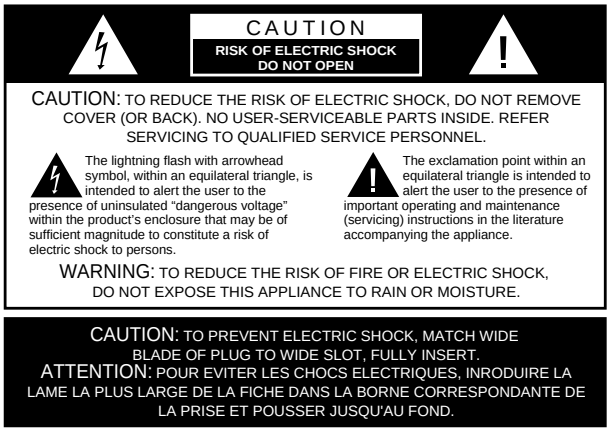
Congratulations! As the owner of a Citation 5.0 A/V Controller, you have a unique product at your command. Combining elegant, sculpted metal panels, the latest state-of-the-art circuit design, on-board Dolby® Digital decoding and Madrigal Audio Laboratories heritage of audio excellence, the Citation 5.0 will bring many years of enjoyable listening to your music or home-theater system.

In order to fully enjoy the performance capabilities of your new 5.0, please take a few minutes to read this Owner's Manual. It contains important information that will help you to properly configure your Controller for operation with the rest of the equipment in your system.

If you have any questions about this product, its installation or operation, please contact your retailer or custom installer. They are your best source of local information. Should you need additional information or assistance, the number for Citation Customer Support is 860-346-0896.



Important Safety Information


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

CE Marking by the "CE" symbol (shown left) indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community.

Verify Line Voltage Before Use

Your new Citation 5.0 A/V Controller has been factory preset for a specific line voltage: 110-120 volts for North America or 220-240 volts in most other parts of the world. Connection to a line voltage other than that for which it is intended may create a safety and fire hazard.

If you have any questions about the voltage requirements for your specific model, or about the line voltage in your area, contact your selling dealer before plugging the unit into a wall outlet.

Do Not Use Extension Cords

To avoid safety hazards, use only the power cord supplied with your unit. If a replacement cord is used, make certain that it is of similar gauge. We do not recommend the use of extension cords with this product. As with all electrical devices, do not run power cords under rugs or carpets or place heavy objects on them. Damaged power cords should be replaced immediately by a qualified service center, using cords meeting factory specifications.

Handle the AC Power Cord Gently

When disconnecting the power cord from an AC outlet always pull the plug, never pull the cord. If you do not intend to use the 5.0 for any considerable length of time, disconnect the plug from the AC outlet.

Do Not Open the Cabinet

There are no user-serviceable components inside this product. Opening the cabinet may present a shock hazard, and any modification to the product will void your warranty. If water, or any metal object, such as a paper clip, wire or a staple, accidentally falls inside the unit, disconnect it from the AC power source immediately and consult an authorized service station.

Installation Location

- To ensure proper operation and to avoid the potential for safety hazards, place the unit on a firm and level surface. When placing the unit on a shelf, be certain that the shelf and mounting hardware can support the weight of the product.
- Make certain that proper space is provided both above and below the unit for ventilation. If this product will be installed in a cabinet or other enclosed area, make certain that there is sufficient air movement within the cabinet. Consult with your dealer or installer for more information.
- Do not place the unit directly on a carpeted surface.
- Avoid installing the 5.0 in extremely hot or cold locations, or in an area that is exposed to direct sunlight or heating equipment.
- Avoid moist or humid locations.
- Do not obstruct the ventilation slots on the top of the unit, or place objects directly over them.

Cleaning

When the unit gets dirty, wipe it with a clean, soft, dry cloth. If necessary, wipe it with a soft cloth dampened with mild soapy water, then a fresh cloth dampened with clean water. Wipe dry immediately with a dry cloth. **NEVER** use benzene, thinner, alcohol or any other volatile cleaning agent. **DO NOT** use abrasive cleaners, as they may damage the finish of metal parts. Avoid spraying insecticide near the unit.

Moving the Unit

Before moving the unit, disconnect any cables that connect the 5.0 to other components. Make certain that the AC power cord is unplugged from the wall outlet.

Important Information for the User

Note: This equipment has been tested and found to comply with the limits for a Class-B digital device, pursuant to Part 15 of the FCC Rules. The limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that harmful interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your dealer or an experienced radio/TV technician.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept interference received, including interference that may cause undesired operation.

Note: Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

Unpacking

The carton and shipping materials used to protect your new 5.0 during shipment were specially designed to cushion it from shock and vibration. We suggest that you save the carton and packing materials for use in shipping if you move or should the unit ever need repair.

To minimize the size of the carton in storage, you may wish to flatten it. This is done by carefully slitting the tape seams on the bottom and collapsing the carton down to a more two-dimensional appearance. Other cardboard inserts may be stored in the same manner. Packing materials that cannot be collapsed should be saved along with the carton in a plastic bag.

If you do not wish to save the packing materials, please note that the carton and other sections of the shipping protection are recyclable. Please respect the environment and discard those materials at the local recycling center.

Typographic Conventions

In order to help you use this manual with diagrams of the remote control, front panel controls, rear panel connections and on-screen menus, certain conventions have been used.

Example – (bold type) indicates a specific remote control or front panel button, or rear panel connection jack.

`Example` – (OCR type) indicates a message that is visible through the on-screen menu system or on the front panel information display.

1 – (Number in a square) indicates a specific front panel control.

❶ – (Number in a circle) indicates a rear panel connection.

Ⓐ – (Letter in a circle) indicates a button on the main portion of the remote control.

A – (Letter in a square) indicates a button under the sliding panel on the lower portion of the remote control.

References to "OSD" indicate a display message that appears through the on-screen menu system. References to "FPD" indicate a display message that appears in the front panel information display. A complete index of OSD and FPD figures appears on page 70.

Quick-Start Instructions

Congratulations on your purchase of a Citation 5.0 A/V Controller. You now own the heart of a home-entertainment system capable of sound reproduction that rivals the finest concert hall or the most modern movie theater.

In order to get the maximum benefit from your new Controller, we strongly suggest that you take the time to carefully read this Owner's Manual. It contains a wealth of information that will help you to properly install, calibrate and operate the Citation 5.0.

We realize, however that you may be anxious to get into action, so the following steps will provide the minimum instructions needed to get things hooked up and "on the air." Please follow the directions carefully to avoid any possibility of damage to other components in your system.

Once you have your Controller connected, we urge you to read through the rest of this Owner's Manual so that your system may be adjusted for optimal performance. That small investment of your time will yield dividends in the form of many hours of listening enjoyment.

Equipment Required for Quick-Start Installation:

Citation 5.0 A/V Controller

Left/Right Front Channel Speakers

Center Channel Speaker

Two Surround Speakers

Five Channels of Amplification

Source Equipment (DVD,VCR, Laser Disc, CD, etc.)

Interconnect and Speaker Cables

Recommended Optional Equipment:

Subwoofers (Powered or Passive)

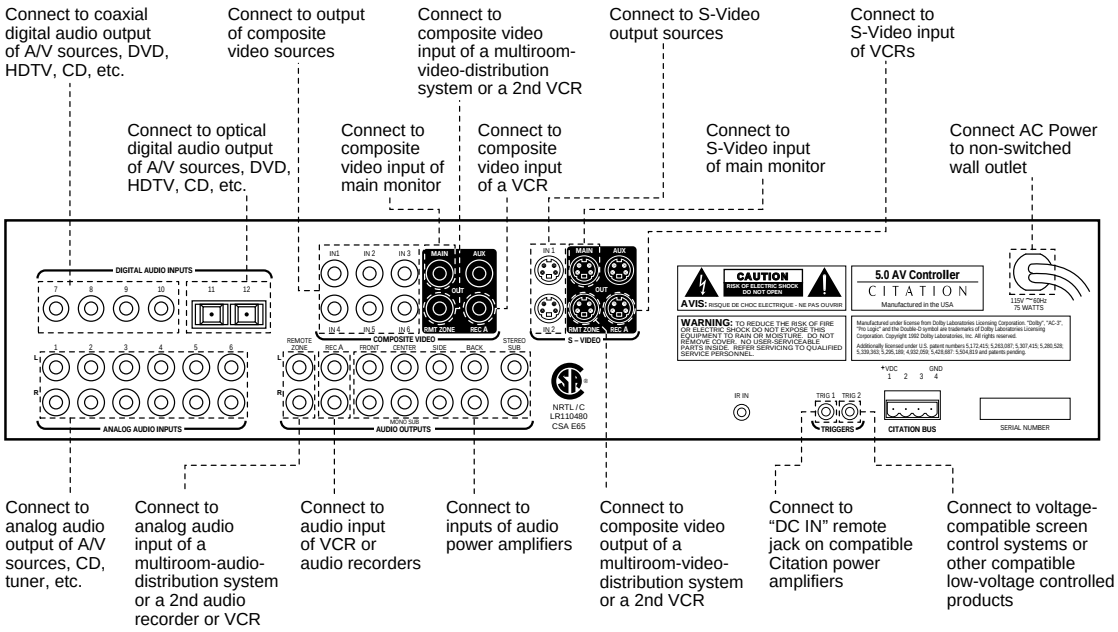
External Amplification for the Subwoofer, if required

Video Display (Direct View Monitor/Receiver or Video Projector)

Dual Drive™ Dipoles or Additional Surround Speakers

Additional Amplification for the Surround Speakers

Quick-Start Connection and Setup


Connect to coaxial digital audio output of A/V sources, DVD, HDTV, CD, etc.
Connect to output of composite video sources
Connect to composite video input of a multiroom-video-distribution system or a 2nd VCR
Connect to S-Video output sources
Connect to S-Video input of VCRs
Connect to optical digital audio output of A/V sources, DVD, HDTV, CD, etc.
Connect to composite video input of main monitor
Connect to composite video input of a VCR
Connect to S-Video input of main monitor
Connect AC Power to non-switched wall outlet
DIGITAL AUDIO INPUTS
COMPOSITE VIDEO
S - VIDEO
ANALOG AUDIO INPUTS
AUDIO OUTPUTS
CAUTION
5.0 AV Controller
CITATION
WARNING:
NRTL/C LR110480 CSA E65
IR IN
TRIGGERS
CITATION BUS
SERIAL NUMBER
Connect to analog audio output of A/V sources, CD, tuner, etc.
Connect to analog audio input of a multiroom-audio-distribution system or a 2nd audio recorder or VCR
Connect to audio input of VCR or audio recorders
Connect to inputs of audio power amplifiers
Connect to composite video output of a multiroom-video-distribution system or a 2nd VCR
Connect to "DC IN" remote jack on compatible Citation power amplifiers
Connect to voltage-compatible screen control systems or other compatible low-voltage controlled products

Note: These are the minimum hook-up connections required to install a Citation 5.0. In order to obtain the maximum benefit from the 5.0's many features and to ensure correct connections, please follow the detailed connection, setup and configuration instructions in this manual.

1. First, please make certain that **ALL** electronic equipment, including any amplifiers, source equipment and, of course, your Citation 5.0 are unplugged from AC power outlets. Many audio/video devices contain automatic turn-on circuits which may be triggered during the setup process. Disconnecting them until they are required is a good safety habit that will also reduce the possibility of damage to your components due to unintended turn-on.

2. Using high-quality interconnect cables, connect the video, analog audio and digital audio outputs of your source equipment to the Citation 5.0 according to the locations shown on the chart on the next page. While the great flexibility of the 5.0 makes it possible to connect source gear in an almost unlimited number of combinations, using these presets will simplify getting started. You may always add additional equipment or change connection locations later, following the instructions found in this manual. When connecting tape recorders, remember to use the "Play/Out" jacks on the recorder for connection to the 5.0's inputs.

Source Device	Video Connection	Analog Audio Connection	Digital Audio Connection
Laser Disc Player	Composite 1	Analog 1	Digital 7 (from RF Demodulator)
VCR	Composite 2	Analog 2	None
Satellite Receiver	Composite 3	Analog 3	Digital 8
Tuner	None	Analog 4	None
CD Player or External D/A	None	Analog 5	Digital 10
CD Changer or External D/A	None	None	Digital 11
DVD Player	Composite 4	None	Digital 9

3. Connect the **Rec A Audio Output** of the 5.0 to the "Rec/In" input of the audio recorder or VCR that will be used to record the output of the 5.0. Connect the **Rec A Video Output** to the composite video input of a VCR that will be used to record the output of the 5.0.

4. Connect the **Main Composite Video Output** on the 5.0 to the Video In jack on your TV monitor or other video display device. A connection from the **Main S-Video Output** on the 5.0 to the S-video input on your video display may also be made if you will use S-video sources at a later time.

5. Using high-quality audio interconnect cables, connect the **Audio Outputs** of the 5.0 to the matching input connection on your amplifier. Note that the 5.0's preset default is for Citation or Fosgate • Audionics Dual Drive dipole surround speakers. If you are using standard surround speakers you will need to make an adjustment at the `Speaker Setup` menu, as detailed on pages 32–33 of this manual.

6. Connect the **Subwoofer Outputs** to the line-level input of powered subwoofers, or to the amplifier that will power passive subwoofers. Note that the 5.0 is shipped for use with stereo subwoofers as a factory default. If you are using stereo subwoofers, be certain to connect them to the **Sub Outputs** at the far side of the output jack field. If you are using only one subwoofer, connect it to the **Mono Sub** jack. If one or no subwoofers are installed, please note that you will have to make an adjustment to the `Speaker Setup` menu, as described on page 34 of this manual.

7. If a Citation power amplifier, or other compatible power amplifier with 12-volt turn-on trigger circuits will be used, connect the **Trig 1 Trigger** jack on the 5.0 to the Trigger Input on the amplifier using a connection cord with mono 3.5mm mini-plugs at both ends. Follow the switch setting instructions for the amplifiers, if any, as detailed in the amplifier owner's manual.

Important Note: To avoid unwanted hum and noise, be careful to keep audio connections, particularly those for amplifiers, separated from AC power cords. Do not coil extra lengths in either audio interconnects or speaker cables.

8. Connect all speakers to the amplifiers in accordance with the instructions supplied by the manufacturers. Make certain that all speaker connections are made with special attention to proper polarity.

9. Install four AAA batteries in the remote. Open the battery cover on the back of the remote by sliding the cover down and towards you. Be careful to install the batteries so that they match the polarity (+ and –) indications inside the battery compartment.

10. Connect all devices, including the 5.0, to their AC power source.

11. Press the small **On/Off** button on the front panel of the 5.0 (below the large **Standby** button) in until it clicks and catches. It will remain in and flush with the unit's front panel. Note that the word CITATION will briefly flash in blue and then go out, and a small green indicator will illuminate.

12. If you will be using a video display, turn it on at this point, and make certain that it is switched to the video input that matches the connection jack used.

13. To turn on the 5.0, press either the **Watch** button on the front panel or remote if you wish to use the video sources, or the **Listen** button if you wish to use one of the audio-only sources. The green indicator on the front panel will go out, and be replaced by a soft blue illumination behind the word CITATION on the front panel. The two-line front panel display will also illuminate. A sign-on menu will appear on the video display for a few seconds, followed by a `Watch Programs` or `Listen Programs` listing.

- If you are using a Citation power amplifier, or another compatible amplifier connected to the **Trig 1 Trigger** jack, it will receive a turn-on signal when the **Watch** or **Listen** button is pressed. Note that with many amplifiers there will be a short, intentional delay between the turn-on signal and when the amplifier sends signals to the speakers. This is a normal function designed to prevent damage to your speakers.
- If you are using a conventional amplifier not controlled by the 5.0's trigger output, turn it on at least 10 seconds **AFTER** the 5.0 is turned on.

14. When the `Watch` or `Listen Programs` lists are on the screen, press the ▲ or ▼ button on the remote until the desired source is highlighted. Then press the **Watch** or **Listen** button again to select that source.

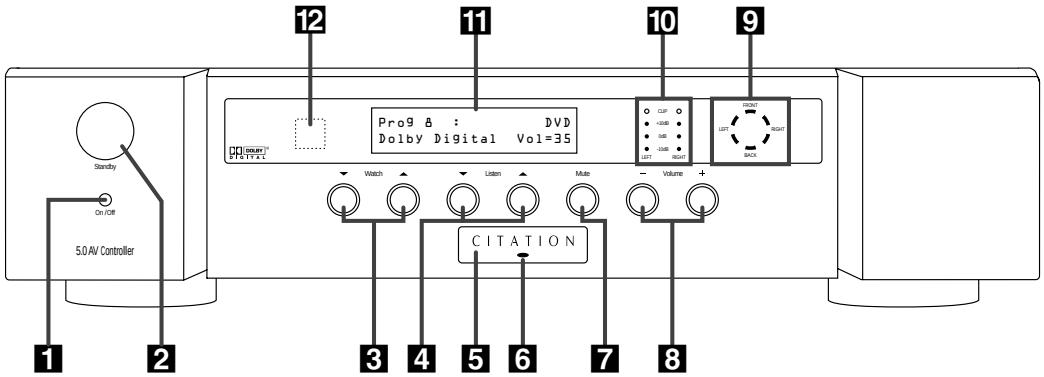
15. The selected source will now be heard through your system, and an informational display will appear at the bottom of your video display. You may adjust the volume at any time by using the **Vol –** or **Vol +** buttons on the remote or front panel, or temporarily silence the speaker output by pressing the **Mute** button. To select another source, press the **Watch** or **Listen** button and follow the instructions in Step 14, above.

16. When you are finished with a listening session, press the **Standby** button on the front panel or in the upper right corner of the remote. The front panel display and blue CITATION will go out, and the green indicator will come back on, to remind you that the 5.0 is in the Standby mode, ready to work again whenever you press the **Watch** or **Listen** buttons.

At this point you are "on the air!" Sit back and enjoy the best in home entertainment.

Of course, this is only the tip of the iceberg. Although you have successfully completed a minimal installation we **strongly** recommend that you take time to read the rest of this Owner's Manual thoroughly. It will show you how to use the many features, modes and controls that are a vital part of the Citation 5.0. Correct setup and installation is important to optimizing the sound quality of your new controller, and will also make it easier to operate. A few minutes spent reading this manual and making certain that your 5.0 is set up to meet the individual characteristics of your system and listening room will enable your 5.0 to deliver the optimum performance of which it is capable.

Front Panel Controls and Indicators



1 Master Power Button
2 Standby Button
3 Watch Selectors
4 Listen Selectors
5 Power Indicator
6 Standby LED
7 Mute Button
8 Volume Control
9 Steering Logic Display
10 Level Indicators
11 Information Display
12 Remote Sensor

1 Master Power Button: This button is the main power control for the 5.0. Press it in until the tip of the button is flush with the front panel to turn the unit on. For normal use, this button should remain in the ON position, with the Standby button or remote control used for turn on/off in normal use. To turn the unit fully off, press the button in so that the stem pops out to the extended position. When the button is in the OFF position, the 5.0 will not respond to commands from the remote control or external control systems.

2 Standby Button: Press this button lightly to turn the 5.0 on or off. Note that in order for this button to operate the 5.0, the **Master Power** button **1** must be in the ON position, as indicated by the appearance of the green **Standby LED 6**.

3 Watch Selectors: Press these buttons to select an input from the Watch List. The first press of either Watch button will display the last input program selected from the list, and subsequent presses of the button will scroll up or down through the list of choices. When the desired input program is displayed, it will take effect after a brief pause. For information on programming the Watch List, see page 43.

4 Listen Selectors: Press these buttons to select an input from the Listen List. The first press of either Listen button will display the last input program selected from the list, and subsequent presses of the button will scroll up or down through the list of choices. When the desired input program is displayed, it will take effect after a brief pause. For information on programming the Listen List, see page 43.

5 Power Indicator: The word CITATION illuminates in blue when the 5.0 is ON and in full operation. When this indicator is not lit, but the **Standby LED 6** below is green, the unit is in the Standby mode. When both indicators are dark, the **Master Power** button **1** is in the OFF position, or the unit is not connected to a live AC power source.

6 Standby LED: When this indicator glows green, the 5.0 is in the Standby mode, and it is ready to be turned ON or OFF when either the **Standby 2** Ⓐ, or the **Watch 3** Ⓒ or **Listen 4** Ⓕ buttons are pressed. When the Standby LED is out, but the **Power Indicator 5** is illuminated in blue, the unit is ON. When both of these indicators are dark, the 5.0 has either been turned off with the **Master Power** button **1** or is not plugged into a live AC power source.

7 Mute Button: Press this button to temporarily reduce or silence the audio output. Press the button again, or change the volume level to return to normal operation. Note that when the Mute function is activated, the level at the **Record Outputs ❸** and **Remote Zone ❷** will remain uninterrupted. When Mute is engaged, a reminder message will appear in the on-screen display (see figures OSD-20 and OSD-21 on page 47) and the word `Mute` will replace the volume level indication in the **Information Display 11**. The actual level for the system when the Mute function is engaged may be set through the `System Options Menu` (see page 40).

8 Volume Control: Press these buttons to raise (+) or lower (–) the main system volume. Volume indications are provided through both the on-screen display (see figure OSD-19 on page 47) and the front panel **Information Display 11**.

9 Steering Logic Display: The indicators in this display provide a visual indication of where the 5.0 is directing signals for the various audio channels. It is normal for these indicators to flash during operation.

10 Level Indicators: These two columns of LEDs provide a four-step display of the left- and right-channel-input level to the 5.0. Note that it is normal for these lights to flash on and off during operation as they react to the changing level of your program material. If there is no movement in this display, it is a sign that the input level may need adjustment, or that there is a problem with the playback source or interconnect cables. Note that the input level may only be adjusted for analog audio sources, and if they constantly register at the "**+10dB**" or "**Clip**" markings, the input needs to be reduced. See page 38 for more information on adjusting the input levels.

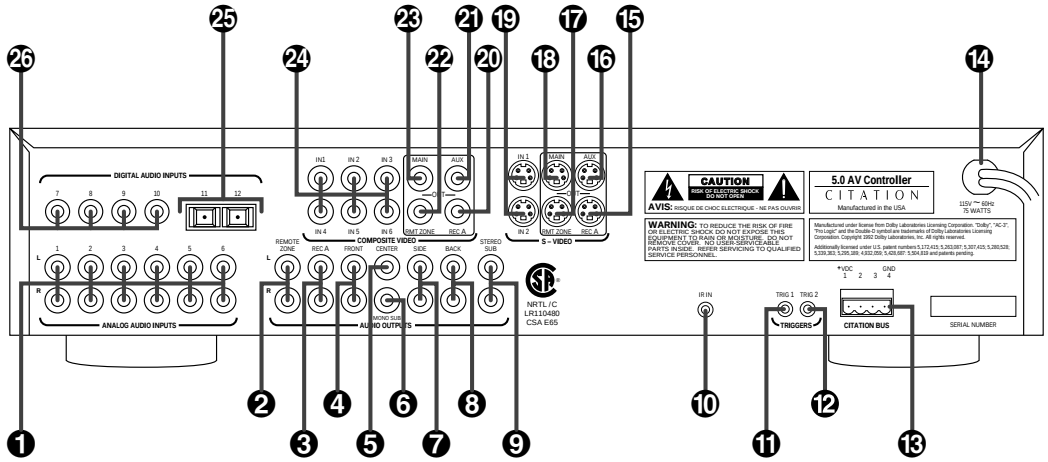
11 Information Display: This two-line display is your window into the status of the Citation 5.0. In normal operation, the display shows the input program number and source name in use on the top line, and the current surround mode and system volume level on the bottom line. When adjustments are being made for setup or re-configuration of the unit's operating system or parameters, the two-line display will indicate the options and instructions needed to make the required choice.

12 Remote Sensor: This area contains the sensor that receives commands from the 5.0's infrared remote control. Make certain that cabinets, smoked glass doors or other objects that may interfere with the line of sight from the remote do not block it.

Rear Panel Connections

Caution: Never make or remove any connections to the Citation 5.0 with the **Master Power** button ❶ in the "ON" position. It is also good practice to make certain that any power amplifiers connected to the 5.0 are also turned off when making or removing any connections. This eliminates the risk of possible damage to your speakers or other system components.

When making connections to the Citation 5.0 make certain that the input plug is firmly seated in the input jack. This prevents intermittent connections which may interfere with performance.


DIGITAL AUDIO INPUTS
ANALOG AUDIO INPUTS
COMPOSITE VIDEO
S - VIDEO
AUDIO OUTPUTS
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR
5.0 AV Controller
CITATION
Manufactured in the USA
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
NRTL/C
LR110480
CSA E65
IR IN
TRIG 1
TRIG 2
TRIGGERS
CITATION BUS
SERIAL NUMBER

❶ Analog Audio Inputs
❷ Remote Zone Outputs
❸ Record Outputs
❹ Front Channel Audio Outputs
❺ Center Channel Audio Output
❻ Mono Subwoofer Output
❼ Side Channel Outputs
❽ Back Channel Outputs
❾ Stereo Subwoofer Outputs
❿ IR In
⓫ Trigger 1 Output
⓬ Trigger 2 Output
⓭ Citation Bus Control Port
⓮ Power Cord
⓯ S-Video Record Output
⓰ S-Video Auxiliary Output
⓱ S-Video Remote Zone Output
⓲ S-Video Main Output
⓳ S-Video Inputs
⓴ Record A Composite Video Output
㉑ Auxiliary Composite Video Output
㉒ Composite Video Remote Zone Output
㉓ Main Composite Video Output
㉔ Composite Video Inputs
㉕ Optical Digital Audio Inputs
㉖ Coax Digital Audio Inputs

❶ **Analog Audio Inputs:** Connect the output of analog audio devices to these inputs. Note that the left channel input is on top, and the right channel input is on the bottom. Once a source has been connected, it may be assigned to any of the twelve Program Settings using the `Program Menu` (see page 37). In this menu the various parameters of the input may be established, including a source name and other system options.

❷ **Remote Zone Outputs:** These outputs are used to feed an optional, external power amplifier for feeds to a remote zone location. The assignment of specific sources to an individual Remote Zone input number is done through the `Remote Zone Menu` (see page 58). The actual selection of the Remote Zone input is made by pressing the **Remote Zone Indicator** buttons 🆁 on the remote control.

❸ **Record Outputs:** These jacks provide an output for connections to the "REC IN" jacks of a recording device such as a VCR, cassette recorder, DAT, MiniDisc, or reel-to-reel recorder. The signal output through these jacks is always identical to the source program selected for the main input to the 5.0.

❹ **Front Channel Audio Outputs:** Connect these jacks to the inputs of the audio power amplifier feeding the front left and right speakers.

❺ **Center Channel Audio Output:** Connect this jack to the input of the audio power amplifier feeding the center channel speaker.

❻ **Mono Subwoofer Output:** Connect this jack to the line-level mono input of a powered subwoofer, or the input of an audio amplifier driving a single passive subwoofer.

❼ **Side Channel Outputs:** If Citation or other Dual Drive speakers are used, connect these jacks to the amplifier driving the side channel speaker inputs. If separate side channel speakers are mounted on the left and right walls of the room, connect these jacks to the amplifier providing power to those speakers.

❽ **Back Channel Outputs:** If Citation or other Dual Drive speakers are used, connect these jacks to the amplifier driving the back channel speaker inputs. If separate speakers are mounted on the rear wall of the listening room, connect the jacks to the amplifier providing power to those speakers.

❾ **Stereo Subwoofer Outputs:** When two subwoofers are installed, connect the outputs of these jacks to the input of the powered subwoofers or to the input of the audio power amplifier driving passive subwoofers.

❿ **IR In:** An external infrared sensor may be connected to this jack for use in sending remote commands to the 5.0 when the front panel **IR Sensor** 12 is blocked, or when a remote sensor is used to control the input and volume from a remote zone location. Selection of the control path for a sensor connected to this jack is controlled via the `IR Mode` setting on the `System Options Menu` (see page 40).

⓫ **Trigger 1 Output:** This jack may be used to supply a trigger control voltage for Citation audio power amplifiers or other compatible devices such as projection screens or automatic blinds designed to accept low-voltage on/off control signals. Programming the triggers with regard to the commands they respond to (e.g., Power, Mute or Display Dim) is controlled through the `Program Triggers` line on the `System Options Menu` (see pages 41–42). Setup for the action of the trigger when a specific input is used is programmed through the `Programs Setup Menu` (see page 37).

⓬ **Trigger 2 Output:** The function of this trigger is identical to Trigger 1, except that it is typically used to control external devices such as screens, blinds or lighting controls. Trigger 1 is typically used for control of audio power amplifiers. Of course, the decision of the devices controlled is entirely user-selectable.

⓭ **Citation Bus Control Port:** This plug is provided to permit operation of the Citation 5.0 by computers or optional wired remote control or home automation systems. The use of this control port requires additional, optional software and it is strongly recommended that a Citation dealer be consulted before any connections are made to this port.

⓮ **Power Cord:** Connect this plug to an unswitched AC power outlet.

⓯ **S-Video Record Output:** Connect this jack to the S-video input of an S-video device to record the selected input source when S-video is present.

⓰ **S-Video Auxiliary Output:** This jack provides an additional S-video output connection for the input source selected for the main viewing room.

⓱ **S-Video Remote Zone Output:** This jack provides an S-video signal for the remote zone location when an S-video source is selected using the **Remote Zone Indicator** buttons R on the remote control.

⓲ **S-Video Main Output:** Connect this jack to the main video display device that will be used to view the output of the source selected by the 5.0.

⓳ **S-Video Inputs:** Connect the output of S-video sources to these input jacks. Once the inputs have been connected, they may be assigned to any of the 5.0's program profiles using the Programs Setup Menu (see page 37).

Important Note on S-Video Sources: The 5.0 does not convert standard, composite video input signals into S-video outputs. In order for a video signal to appear at any of the S-video outputs, the input program must contain S-video source.

⓴ **Record A Composite Video Output:** Connect this jack to the standard video "REC IN" jack of a VCR to record the input selected by the 5.0.

㉑ **Auxiliary Composite Video Output:** This jack provides an additional composite video output connection for the source selected for the main viewing room.

㉒ **Composite Video Remote Zone Output:** This jack provides a standard, composite video signal for the remote zone location. This input is selected by using the **Remote Zone Input** buttons 🅁 on the remote control.

㉓ **Main Composite Video Output:** Connect this jack to the composite video input of the TV set, video monitor, projection television or other video display device that will be used in the main viewing location.

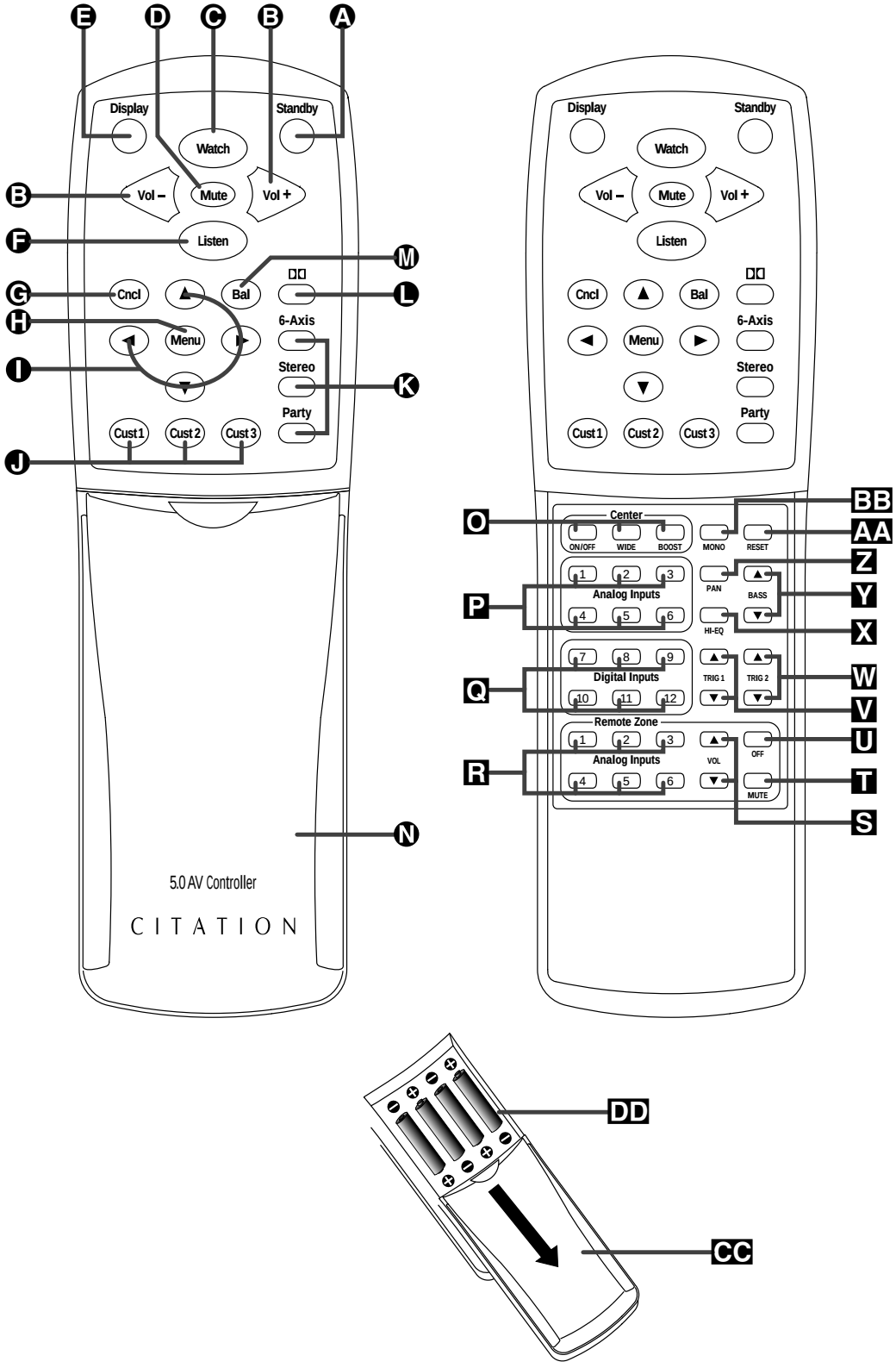
㉔ **Composite Video Inputs:** Connect the output of composite video sources to these input jacks. Once the inputs have been connected, they may be assigned to any of the 5.0's program profiles using the Programs Setup Menu (see page 37).

㉕ **Optical Digital Audio Inputs:** Connect the optical (TosLink) digital audio output of audio sources to these jacks. Once the inputs have been connected, they may be assigned to any of the 5.0's program profiles using the Programs Setup Menu (see page 37).

㉖ **Coax Digital Audio Inputs:** Connect the coax digital audio output of audio sources to these jacks. Once the inputs have been connected, they may be assigned to any of the 5.0's program profiles using the Programs Setup Menu (see page 37).

Remote Control Operation

Citation 5.0 Remote Control



Main Portion of Remote

Ⓐ Standby
Ⓑ Volume +/–
Ⓒ Watch
Ⓓ Mute
Ⓔ Display
Ⓕ Listen
Ⓖ Cancel
Ⓗ Menu
Ⓘ Menu Control Buttons
Ⓙ Custom Mode Selectors
Ⓚ Preprogrammed Mode Selectors
Ⓛ Dolby Mode Selectors
Ⓜ Balance Control
Ⓝ Secondary Control Cover

Lower Portion of Remote

Ⓞ Center Mode Adjustments
Ⓟ Analog Input Program Buttons
Ⓠ Digital Input Program Buttons
Ⓡ Remote Zone Analog Inputs
Ⓢ Remote Zone Volume
Ⓣ Remote Zone Mute
Ⓤ Remote Zone Off
Ⓥ Trigger 1 Manual Control
Ⓦ Trigger 2 Manual Control
Ⓧ Hi-EQ Control
Ⓨ Bass Boost
Ⓩ Panorama Control
AA Reset
BB Mono Mode Selector
CC Battery Compartment Cover
DD Battery Compartment

Although the basic functions of the Citation 5.0 may be operated from the front panel, most operations and all setup and configuration settings will be controlled through the wireless remote. The remote is a powerful tool, and it is worth taking a few minutes to familiarize yourself with the various options and controls.

Ⓐ **Standby:** Press this button to put the 5.0 in the Standby mode, which means that it is still connected to the AC main power supply, but that it is not currently processing sound in the main listening room.

Ⓑ **Volume +/–:** Press these buttons to increase (+) or lower (–) the system's output volume.

Ⓒ **Watch:** When the 5.0 is in the Standby mode, pressing this button turns the unit on and displays a list of input programs selected for the "Watch List." These are typically the inputs related to video oriented sources, but they may be programmed to any input program through the `Watch List Menu` (see page 43 for more information). Once the list appears, the last input program used will be highlighted. Press the **Watch** button again to view and listen to that source. If you wish to view and listen to another input program, press the ▲ or ▼ buttons Ⓘ to highlight the desired input and then press **Watch**. This button may be pressed at any time to view the `Watch List`, and select another input program.

Ⓓ **Mute:** Press this button to temporarily reduce or silence the audio output. Press the button again, or change the volume level to return to normal operation. Note that when the Mute function is activated, the level at the **Record Outputs ❸** and **Remote Zone Outputs ❷** will remain uninterrupted. When Mute is engaged, a reminder message will appear in the on-screen display (see figures OSD-20 and OSD-21 on page 47) and the word `Mute` will replace the volume level indication in the **Information Display 11**. The actual level for the system when the Mute function is engaged may be set through the `System Options Menu` (see pages 40–41).

Ⓔ **Display:** Press this button to turn off all front panel indicators and displays. Press it again to turn them back on. Note that the **Power Indicator 5** will always remain illuminated as a reminder that the 5.0 is powered on.

Ⓕ **Listen:** When the 5.0 is in the Standby mode, pressing this button turns the unit on and displays a list of the input programs selected for the "Listen List." These are typically the inputs related to audio-oriented sources, but they may be programmed to any input program through the `Listen List Menu` (see page 43 for more information). Once the list appears, the last input program used will be highlighted. Press the **Listen** button again to view and listen to that source. If you wish to view and listen to another input program source, press the ▲ or ▼ buttons Ⓘ to highlight the desired input and then press **Listen**. This button may be pressed at any time to view the `Listen List`, and select another input program.

G Cancel: This button has two functions. Its main use is to exit from the menus and return either to normal operation or to the previous menu when configuring the 5.0 or adjusting system parameters. Within some menus, the **Cancel** button will have specific "exit" functions that are shown on screen at the appropriate time. Pressing this button when the unit is in normal operating modes and no other menu is present will reset all user parameters.

H Menu: Pressing this button brings the `Main Menu` to the screen. From that menu you may proceed to configure the unit or adjust any of the individual system parameters or input programs.

I Menu Control Buttons: These buttons control the location of the items highlighted or selected on the various on-screen control and configuration menus. Depending on the specific menu in use, they may change settings, increase or decrease levels or change the wording of named programs. Note that the ◀ is used at the top line of most menus to return to the previous menu or to exit the menu system. When the right pointing carat (`->`) appears at the end of a menu line, the ▶ is used to move to the next sub-menu. The ▲ or ▼ buttons are frequently used to move to the next item in the menu list, or to change the letter in naming functions. When no other display is on the screen, pressing the ▲ **Menu Control** button will display a status screen for the incoming digital signal (see figures OSD-27 and OSD-28 on page 54). Pressing the ▼ **Menu Control** button will display a complete System Status report (see figure OSD-26 on page 54).

J Custom Mode Selectors: Press these buttons to select one of the three custom modes. When the DTS™ decoding option is installed, press the **Cust 1** button to use the DTS decoding system.

K Preprogrammed Mode Selectors: Press these buttons to select one of the preprogrammed surround modes.

L Dolby Mode Selectors: Press this button to select Dolby Digital or Dolby Pro Logic®, depending on the source material in use. (See pages 50–51 for more information on the various options available for the Dolby surround modes.)

M Balance Control: Press this button to activate the `Balance Control Menu`. When the button is pressed once, a diagram will appear on screen (see figure OSD-22 on page 48) that shows an asterisk ✱ surrounded by arrows to represent the current listening position. To adjust the left/right balance and front/rear fade, press the **Menu Control** buttons I to "move" the desired listening position with respect to the center of the room. Pressing the button a second time will bring the `Trim Speaker Levels` menu (see figure OSD-23 on page 48). At this menu it is possible to adjust the output level to each individual channel when external program material, rather than the internal test generator is used. Use the ▲ and ▼ buttons to select the individual channel under adjustment and the ◀ and ▶ buttons to change the individual level. Note that this menu should only be used after the output levels have first been adjusted through the the `Calib Speaker Levels` menu within the the `Speaker Setup` menu page. (See pages 32–37 for more information.) When all balance adjustments have been made, press the **Bal** button again to enter the settings and exit these menus.

N Secondary Control Cover: This sliding panel normally covers the secondary controls for the Citation 5.0. To access the controls below the panel, lightly press down on the indent at the top center of the panel and slide it towards you.

O Center Mode Adjustments: Press any of these buttons to change the Center Channel mode. (See page 48 for more information.)

P Analog Input Program Buttons: Press any of these buttons to select any of the six analog input programs. Note that the numbers on the buttons do **NOT** refer to the equipment connected to any of the individual analog input jacks on the rear of the 5.0. These numbers call up the complete input profile that is established using the `Programs Setup Menu` to combine any of the analog sources with any video input. (See pages 37–40 for more information on configuring the input programs.)

Q Digital Input Program Buttons: Press any of these buttons to select any of the six digital input programs. Note that the numbers on the buttons **DO NOT** refer to the equipment connected to any of the individual analog input jacks on the rear of the 5.0. These numbers call up the complete input profile that is established using the `Programs Setup Menu` to combine any of the digital sources with any video input. (See pages 37–40 for more information on configuring the input programs.)

R Remote Zone Analog Inputs: Pressing these buttons selects the inputs that are routed to the **Remote Output** jacks ❷ ⓱ ㉒. Note that only analog audio inputs may be routed to the remote zone, so the selection process here is different from the input program profiles that may be configured for the main room. When selecting a remote zone input, the number on the button pressed corresponds directly with the analog input jack numbers on the rear panel. However, any of the composite or S-video inputs may be associated with each of the audio inputs using the `Remote Zone Menu`. (See page 59 for more information on remote zone operation.)

S Remote Zone Volume: Pressing these buttons will raise ▲ or lower ▼ the volume in the remote zone location without affecting the volume in the main listening room. (See page 59 for more information on remote zone operation.)

T Remote Zone Mute: Pressing this button will mute the volume in the remote zone location without affecting the volume in the main listening room. (See page 59 for more information on remote zone operation.)

U Remote Zone Off: Pressing this button will turn off the feed to the remote zone without affecting the main listening room. (See page 59 for more information on remote zone operation.)

V Trigger 1 Manual Control: Pressing these buttons will manually activate ▲ or deactivate ▼ the devices connected to and controlled by the **Trigger 1 Output** jack ⓫. (See page 50 for more information.)

W Trigger 2 Manual Control: Pressing these buttons will manually activate ▲ or deactivate ▼ the devices connected to and controlled by the **Trigger 2 Output** jack ⓬. (See page 50 for more information.)

X Hi-EQ Control: Pressing this button will turn the High-Frequency Equalization circuits on or off. (See page 56 for more information.)

Y Bass Boost: Pressing these buttons will increase ▲ or decrease ▼ the amount of bass boost applied to the output signals. (See page 56 for more information.)

Z Panorama Control: Pressing this control will change the amount of Panorama circuitry that is applied to the output signal. This will have the effect of moving the signal along the side walls of the room so that the listening position will appear to move closer to or farther away from the front of the room. Note that this circuit is applied to analog sources only, and it **DOES NOT** operate when digital inputs are being used. (See page 57 for more information.)

AA Reset: Press this button to call up a menu that will permit reset of the currently selected Surround mode or Program input to the factory defaults. When the menu (see figure OSD-25 on page 50) appears, press ▲ to reset the Surround mode or ▼ to reset the Program input to the factory defaults. Press **Cancel** ⓮ to exit the menu without any resets taking place. (See page 50 for more information.)

BB Mono Mode Selector: Press this button to switch the current source to a traditional Mono mode. Press the button again to return to the previously selected surround mode.

CC Battery Compartment Cover: To remove the cover press down slightly on the raised ridges and gently push the cover away from you. To replace the cover, slide it back towards you until you hear the latch click.

DD Battery Compartment: Insert fresh AAA batteries here, being certain to observe proper polarity by matching the (+) and (–) indications on both the batteries and case.

System Installation

The Citation 5.0 is a powerful audio controller that combines digital signal decoding, surround sound processing and a wide range of flexible adjustments in one easy-to-use package. Although many aspects of the 5.0 resemble familiar audio components, the wide range of control it offers means that some of the steps in the installation process may be a bit different from traditional analog-only audio products. For that reason, it is important that you read the following section carefully, even if you are familiar with audio systems.

As a safety note, it is always good practice to make certain that the 5.0 and all equipment being installed and connected to it be turned off and unplugged from AC power sources. This prevents the possibility of accidentally sending any audio or control signals through the system that may damage your equipment.

If you are not familiar with the intricacies of advanced audio system installation, we suggest that you have your Citation dealer install and configure the 5.0. They are experts in multichannel audio and home theater and have received special training on all Citation products. Should you wish to install and configure the 5.0 yourself, please pay special attention to the instructions below, and throughout this manual. Proper configuration of the 5.0's many control options is essential for optimal system performance.

We also recommend that you use high-quality interconnect cables when making connections to external audio and video equipment. There are many brands of cables to choose from, and we suggest that you consult with your dealer to select the cables that suit your needs and budget to best preserve the quality of signals in your system.

Input Connections

Traditional audio/video products have fixed source inputs that are assigned to specific products or sources. For example, VCRs are connected to an input marked "VCR" and CD players are connected to an input marked "CD." The Citation 5.0's flexible input profile system, however, allows you to connect inputs from a variety of digital and analog audio sources and composite or S-video sources, and assign them to any of twelve positions. The following instructions will guide you to making the individual connections. The actual assignment of the sources is explained in the section of this manual covering the Program Setup starting on page 37.

For simple installations, input sources may be connected using the factory preset profile assignments shown at the top of page 11 or in Appendix A. There are no rules that govern what you may connect to any of the numbered inputs as long as the type of input signal matches (e.g., video sources to video inputs, audio sources to audio inputs, coax digital to coax and optical digital to optical). To assist in the setup of custom input source profiles, it is strongly suggested that you make a note of your connection data on the worksheet provided in Appendix B.

Audio Inputs

The Citation 5.0 accepts inputs from conventional analog audio products and both coaxial and digital audio sources. The flexibility of the 5.0's profile system allows you to connect both analog and digital outputs from the same source (such as a DVD or laser disc player) and then associate each output with a separate program profile. (Program profiles are explained on page 37.)

In addition, the 5.0 will decode both PCM digital signals and Dolby Digital (AC-3®) data. PCM digital is used by both conventional CD players or the standard digital output of a laser disc player, while Dolby Digital is used on DVD as well as high-definition television sets (HDTV), many new computer games and other future digital audio devices. Decoding for the DTS digital audio system is an optional feature of the 5.0. (Check with your dealer to determine if your 5.0 is equipped for DTS decoding.)

Analog audio input connections are made in left/right pairs to the **Analog Audio Inputs ❶**, while digital audio connections are made to either the **Coaxial** or **Optical Inputs ㉖ ㉕**. In most cases, the channel identification on source equipment will be red inserts to the RCA plugs for the right channel, white inserts for the left channel and orange inserts for coaxial digital signals. Optical digital audio connections use a unique style of connector that is unlike standard audio plugs.

In many cases, an audio source may have both analog and digital outputs. If desired, you may connect both types of outputs to the 5.0.

When making connections, make note of the equipment connected to each input using the chart in Appendix B.

Important Note:: Be careful not to connect audio sources to the wrong plug type. In particular, do not make connections from the "RF" output of a laser disc player directly to the 5.0. Digital RF signals must first be demodulated by an optional, external device, which is then connected to the 5.0 via a coax or optical digital connection. Improper connections with an RF digital source may result in damage to your equipment.

Video Inputs

Video source connections are made to either the **Composite Video ㉔** or **S-Video ⑲ Inputs**.When connecting an audio/video device such as a DVD, satellite receiver, laser disc player or VCR it is a good idea to make the video and audio connections to the same input number. However, any input number may be used as long as you keep a note of which source is connected to each numbered video input.

Since the 5.0's input profile system allows you to use the same physical video input in combination with a number of different audio sources, it is typically not necessary to connect a video source to the 5.0 more than once. Once audio or video connections are made, they may not be mixed and matched or used with more than one input profile. For example, the video output of a VCR or cable box may be used both with the VCR's own audio source for normal playback, but it may also be used with the tuner so that you may watch the video of a sports broadcast along with the commentary from a radio station.

System and Accessory Inputs

If the 5.0's front panel remote sensor is blocked by cabinet doors or other obstructions, an optional, external IR sensor may be connected to the **IR Input ⓾**. In some instances, the IR input may be connected to the IR output of another product with compatible IR systems. Consult your dealer or custom installer if you have questions concerning the use of the IR input.

The Citation Bus connector is provided for connections to and from compatible remote control equipment. Connectionss made to this jack typically require special training, and it is advisable for them to be made only by your Citation dealer.

Connect the **AC Power Cord ⓮** to a non-switched AC power source that is compatible for the voltage setting of your Citation (typically 110 volts for North America, 230 volts for Europe and most other parts of the world). If you are in doubt as to the voltage requirements for your specific model check the information on the rear panel or consult your dealer. Connections to the wrong voltage source are dangerous and may cause damage to the unit that is not covered by the warranty.

Output Connections

Audio Outputs

Connect the **Front Left**, **Right** and **Center Channel Audio Outputs ❹ ❺** to the matching audio inputs of your audio power amplifier for the left, center and right channels. Connect the power amplifier to the speakers in accordance with the instructions provided by the amplifier and speaker manufacturers.

The type of speakers used in a system determines connections for the surround channels.

- When Citation, Fosgate•Audionics or Dual Drive dipole speakers are used, connect the **Side Channel Outputs ❼** and the **Back Channel Outputs ❽** to the matching input connections on your audio power amplifiers. Connect the power amplifier to the speakers in accordance with the instructions provided by the amplifier and speaker manufacturers.
- When only one pair of conventional, point-source surround speakers is used and they are placed either on the back or side walls of a room, connect the **Back Channel Outputs ❽** on the 5.0 to the left/right surround channel inputs on your audio power amplifier. Connect the power amplifier to the speakers in accordance with the instructions provided by the amplifier and speaker manufacturers.

If only one subwoofer is used, connect the **Mono Subwoofer Output ❻** of the 5.0 to the input of a powered subwoofer or the input of a power amplifier used to drive a passive subwoofer. Consult the instructions packed with your subwoofer for specific information.

If two subwoofers are used, connect the left and right **Stereo Subwoofer Outputs ❾** to the inputs of powered subwoofers or the input of a power amplifier used to drive passive subwoofers. Consult the instructions packed with your subwoofer for specific information.

Note: The factory defaults for the 5.0 are for Dual Drive dipoles and stereo subwoofers. If your system uses another configuration for either of these speakers, make certain you make the necessary adjustments to the Setup Menus as shown on pages 32 and 33.

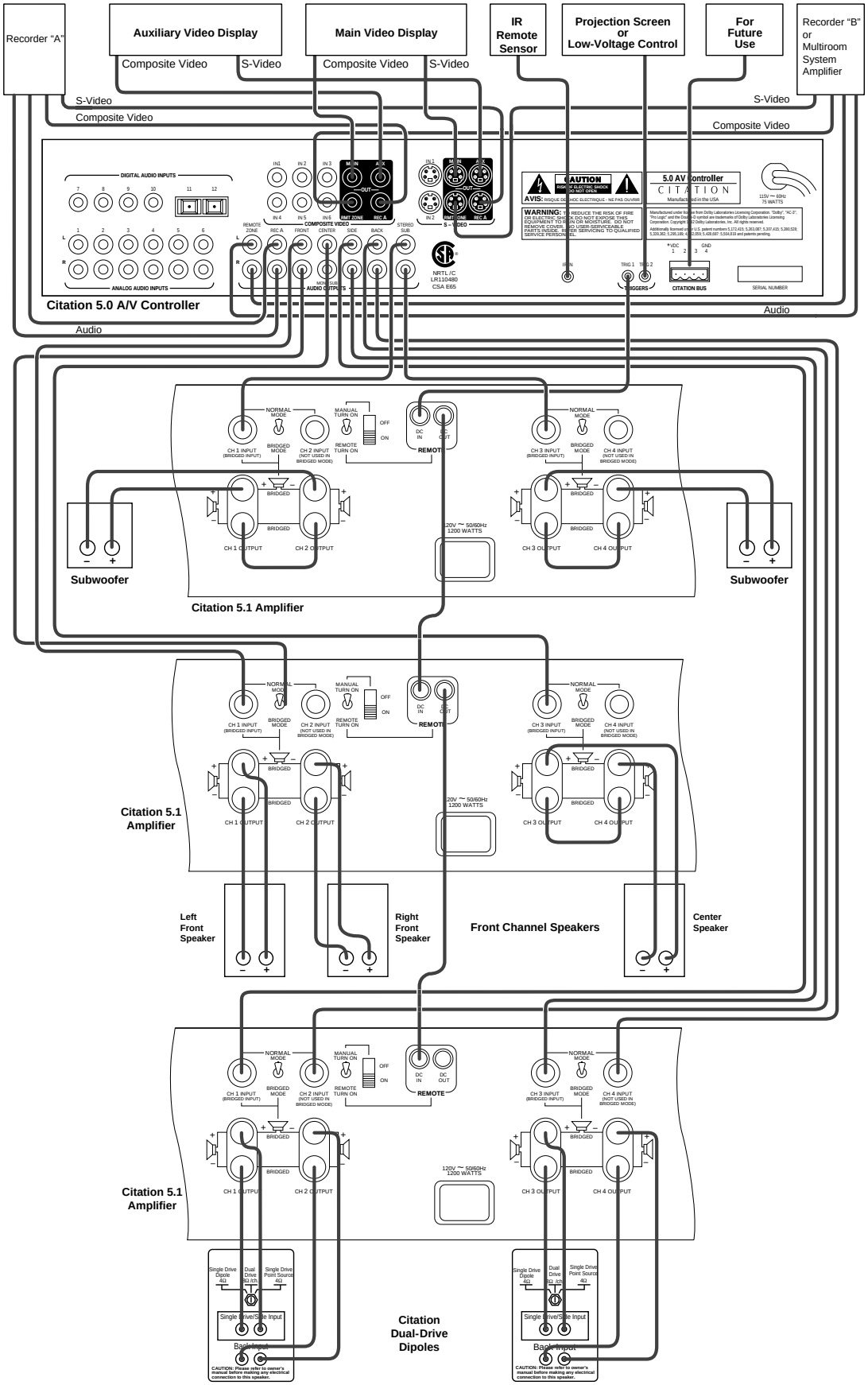


Figure 1 *System Output Connections for Citation System 5000 with Dual-Drive Dipoles.*

Video Outputs

Important Note: During initial setup, connect your projector or monitor to the main composite video output; NOT the S-video output.

This is recommended because important on-screen display information is factory-programmed to appear at this output connection only. Later, after program profiles have been set for S-video operation (described later in the manual), these *will* appear at the Main S-Video Output, and your monitor may easily be disconnected from the Main Composite Video Output and reconnected to the Main S-Video Output connection.

Using high-quality 75Ω video interconnect cables with coaxial-style construction, connect the **Main Composite Video Output** ㉓ and/or **S-Video Main Output** ⑱ to the video or S-video inputs of your TV, projector, video monitor or other video display device or processor. The **Auxiliary Composite Video** ㉑ and **S-Video Auxiliary** ⑯ **Outputs** may be connected to a second video device on which you wish to view or record the output of the 5.0.

Note: The 5.0's input switching system will convert S-video inputs for display on a standard composite video monitor, but it **WILL NOT** convert composite video signals to the S-video format. If your system uses a mix of both standard and S-video it is easiest to make connections only to the standard video input of a monitor, although that will remove the signal quality benefits of an "S" connection. If both types of connections are made, it is necessary to switch your video display from composite to "S" so that the monitor's input matches the output of the device chosen by the 5.0.

Record Outputs

Connect the audio **Record Outputs** ❸ to the Record/In jacks of an audio or video recorder. Connect the **Record A Composite Video** ⑳ and **S-Video Record** ⑮ **Outputs** to the Record/In jacks of a VCR or other video recording device. These jacks will duplicate the output signal of the sources selected for listening and viewing through the main outputs of the 5.0, but the on-screen control menus will not appear to permit "clean" recordings. Be careful not to select any recorder, whether video or audio, as a program source while that recorder is in the record mode; a feedback loop may be be created which could result in unpleasant sounds being generated. Should this occur, press MUTE (or turn the volume down), and either select another program source or take the recorder out of the record mode.

Remote Zone Outputs

The remote zone outputs of the Citation 5.0 will be fed a separate set of signals from those used in the main listening room. They may be the same as, or different from the main room signals, and they are selected using the remote control and the menu control system. Please note that only analog audio sources can be selected for distribution to a remote zone. (See page 59 for complete information on the 5.0's multiroom capabilities.)

Connect the **Remote Zone Outputs** ❷ to the inputs of the audio power amplifier that feeds your multiroom system. Connect the **Composite Video Remote Zone** ㉒ and **S-Video Remote Zone** ⑰ **Outputs** to the video devices or video distribution system that is used for remote zone viewing.

System Accessory Connections

The Citation 5.0 is equipped with two separate control triggers that may be used to activate a wide variety of optional, external devices such as power amplifiers, projection screens, power blinds and lighting controls. As the connection and programming of these triggers may be complex, it is strongly suggested that they be installed and configured by your Citation dealer. A connection to the triggers involves voltages, which, if improperly connected, may cause damage not covered by product warranties.

When the triggers are used to power compatible audio power amplifiers from Citation or other manufacturers, connect the **Trigger 1 Output ⓫** to the Trigger Input on the amplifier. The factory defaults for the 5.0 will automatically send a "Power ON" signal to these amplifiers from both Trigger 1 and Trigger 2 when the 5.0 is turned on, and it will return them to a Standby mode when the 5.0 is turned off. To use the triggers for any other function, the `Power` option for trigger programming must be turned off in the `System Options` sub-menu titled `Program Triggers`. Connections for Citation power amplifiers are shown in the accompanying diagram.

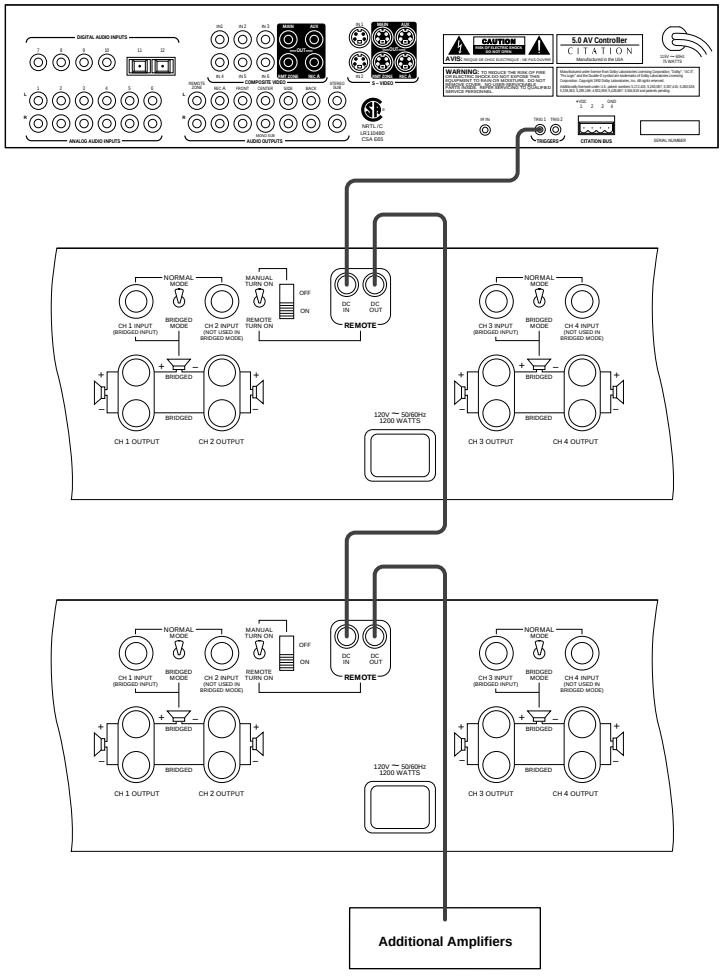


Figure 2 *Citation Power Amplifiers may be controlled by connecting TRIG 1 trigger to amplifier remote jacks, as shown.*

Connections to other devices that operate via 6- to 12-volt trigger signals may be made by connecting either of the **Trigger Outputs ⓫ ⓬** to the input of the controller or device with a 3.5mm mono mini-plug.

Once the external controller or device is connected to the 5.0, the control of trigger states may be made using the menu options described on page 41. Consult the instructions supplied with the device being triggered for information on compatibility or other settings that may be required.

Important Note: When using the triggers with devices other than approved Citation products, it is critical that the trigger voltages and connection polarities are compatible. In addition, the total load for all devices controlled by the triggers may not exceed 150mA. Due to the possibility for equipment damage and possible safety hazards caused by interconnect trigger connections, it is strongly recommended that only your Citation dealer make trigger connections. They have the training to assure that these connections are made safely and properly. Mismatched trigger connections may cause damage to equipment that is not covered by factory warranties.

System Configuration

Once you have made the physical connections between the Citation 5.0 and the other equipment in your system, it is necessary to make certain adjustments that “tell” the 5.0 about the speakers and where they are located in the listening room and to make adjustments for the acoustics in the room. These adjustments will also enable you to harness the power of the 5.0’s menu system so that input sources may be grouped into profiles and named to suit your requirements. Finally, there are adjustments and calibrations to be made that optimize the outputs of the 5.0 to produce the best possible sound.

Speaker Selection and Placement

The placement of speakers in a multichannel-home-theater system will have a noticeable impact on the quality of sound reproduced.

No matter which type or brand of speakers is used, the same model or brand of speaker should be used for the front left, center and right speakers. This creates a seamless front soundstage, and eliminates the possibility of distracting sonic disturbances that occur when a sound moves across mismatched front channel speakers.

Speaker Placement

Depending on the type of center channel speaker in use and your viewing device, place the center speaker above or below your TV or projector.

Once the center channel speaker is installed, position the left and right front speakers so that they are as far away from one another as the center channel speaker is from the preferred listening position. Ideally, the front channel speakers should be placed so that their tweeters are no more than 24" vertically off center from the tweeter in the center channel speaker.

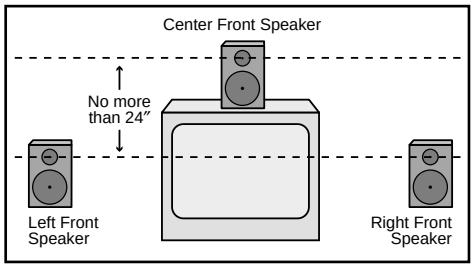


Figure 3 *Front Channel Speaker Installation with Direct-View TV Sets or Rear-Screen Projectors.*

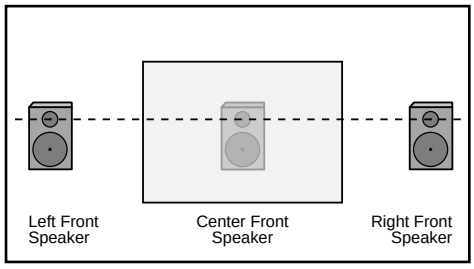


Figure 4 *Front Channel Speaker Installation with Center Speaker behind a Perforated Front Projection Screen.*

Depending on the specifics of your room acoustics and the type of speakers in use, you may find that imaging is improved by moving the front left and right speakers slightly forward of the center channel speaker. If possible, adjust all front loudspeakers so that they are aimed at ear height when you are seated in the listening position.

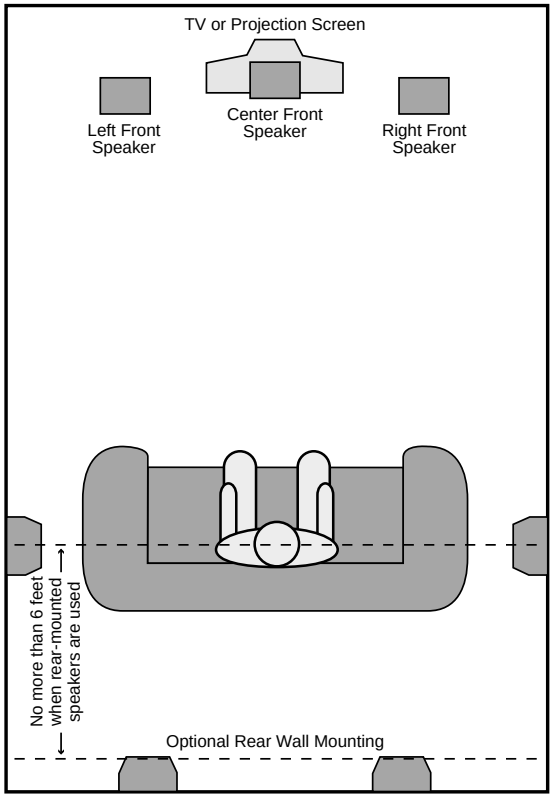

TV or Projection Screen
Left Front Speaker
Center Front Speaker
Right Front Speaker
No more than 6 feet when rear-mounted speakers are used
Optional Rear Wall Mounting

Figure 5 *The distance between the left and right speakers should be equal to the distance from the seating position to the viewing screen. You may also experiment with placing the left and right speakers slightly forward of the center speaker.*

Using these guidelines, you may find that it takes some experimentation to find the correct location for the front speakers in your particular installation. Don't be afraid to move things around until the system sounds correct. Optimize your speaker positions so that pans across the front of the room sound smooth, and that sounds from all speakers appear to arrive at the listening position at the same time.

Surround speakers should be placed on the side walls of the room, at or slightly behind the listening position. The center of the speaker should face into the room. The speakers should be located so that the bottom of the cabinet is at least two feet higher than the listener's ears when in the desired area, as shown below.

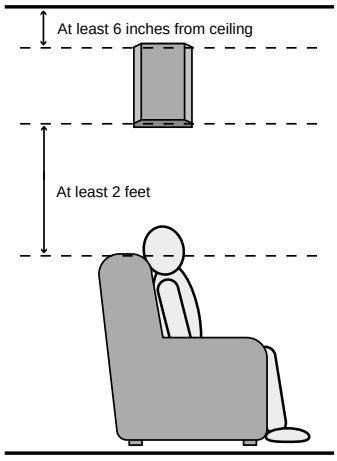


Figure 6 *Speaker Placement, Side View*

If side wall mounting is not practical, the speakers may be placed on a rear wall, behind the listening position. Again, they should be located so that the bottom of the cabinet is at least two feet higher than the listener's ears. The speakers should be no more than six feet behind the rear of the seating area.

Subwoofers produce non-directional sound, so they may be placed almost anywhere in a room. Subwoofer placement is highly influenced by room size and shape, and the type of subwoofer used. Follow the instructions provided by the subwoofer's manufacturer, or experiment with the best location for a subwoofer in your listening room.

Initial Turn-On

Once the speakers have been installed, the next step is to calibrate and configure the 5.0 for the specifics of your installation. First, make certain that you have installed the four supplied AAA batteries in the remote control, as shown on page 18. Next, make certain that the **AC Power Cord ⓮** is plugged into a non-switched AC wall outlet.

You are now ready to turn on the 5.0. Before proceeding, place the **Master Power** button **1** in the ON position by pressing it in until the switch latches and is flush with the 5.0's front panel. The **Standby LED 6** on the front panel will illuminate as a reminder that the unit is now connected to an AC power source and in the Standby mode. This is also your indication that the unit is ready to accept commands from the remote control or other external controllers.

The final preparation before proceeding with the configuration is to make certain that your television, monitor, projector or other video display device is turned on, and that it is adjusted so that the 5.0 is the current video input. At this point you should also make one last check that all sources, amplifiers and speakers are properly connected to the 5.0, plugged into AC power, turned on or in their Standby mode.

Note: Although the setup and configuration process may be done by using either the front panel **Information Display 11** or the on-screen menu system, it is strongly recommended that the on-screen menus be used to complete the procedures outlined in the following sections. The extended menu item listings through the on-screen system make the job easier and more accurate.

Turn the 5.0 on by pressing the **Standby** button **2** on the front panel or either the **Watch Ⓒ** or **Listen Ⓕ** buttons on the remote. Note that the **Standby LED 6** will go out and the word CITATION on the front panel will turn a soft blue color to act as the **Power Indicator 5**. If the 5.0 is connected to a Citation power amplifier via the remote trigger, it will also turn on after a brief delay.

At the same time, a message will appear in both the on-screen display (Figure OSD-1) and the front panel **Information Display 11** (Figure FPD-1).

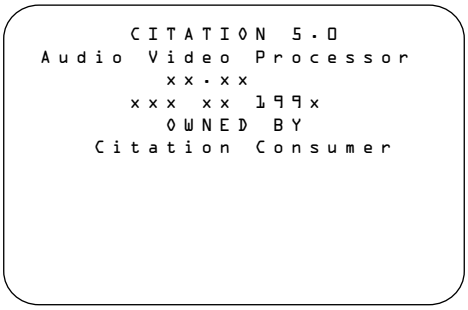


Figure OSD-1

```
Citation 5.0
Rev X.XX        RESET
```

Figure FPD-1

Included in the initial turn-on message will be the “Rev” number for the software that operates the 5.0. It is a good idea to note the software version that is installed in your unit in the place provided in Appendix B. Although it is unlikely that you will encounter problems with the 5.0, the exact revision number of the software installed in your system is a valuable diagnostic tool that may be helpful to Customer Service representatives when you contact Citation via letter, phone or e-mail.

After a brief display of the main turn-on message, the displays will then indicate the factory default input (Figure OSD-2 and FPD-2), and then go blank.

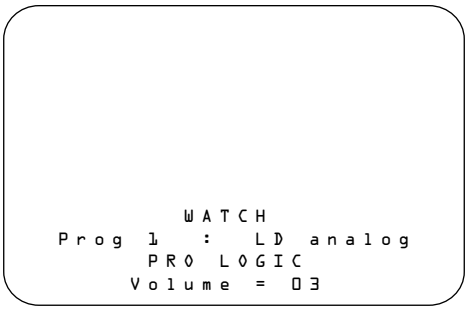


Figure OSD-2

```
Prog 7  : DVD
*Pro Logic*   Vol=49
```

Figure FPD-2

Speaker Setup

The first step in the configuration is to program the 5.0 so that it “knows” what kind of speakers are connected. This information, pertaining to the number and type of speakers installed, not their brand or model, establishes the bass management for the 5.0.

To begin the process, press the **Menu** button ❶ and note that the `Main Menu` (Figure OSD-3) will appear. Please note that system response to programming commands is slow due to the large size of the program in the 5.0’s microprocessor.

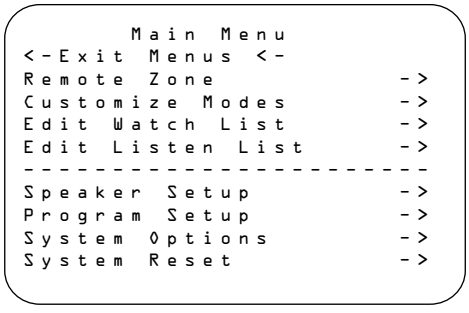


Figure OSD-3

Press the ▼ **Menu Control** button ❶ five times until the words `Speaker Setup` are highlighted on the screen. Press the ▶ **Menu Control** button ❶ to go to the `Speaker Setup` menu (Figure OSD-4).

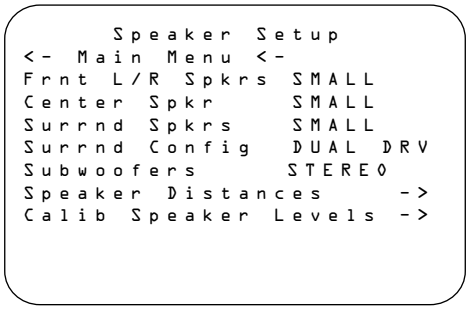


Figure OSD-4

The first three lines tell the system if the speakers used are capable of extended low-frequency reproduction. When making a setting, use the following as a guideline:

SMALL: Select this setting if the speakers are satellite-type speakers that are not capable of reproducing low-frequency information below 100Hz.

LARGE: Select this setting if the speakers are traditional, full-range loudspeakers.

Note: The words LARGE and SMALL do not refer to the actual size of the speakers, but their ability to handle low-frequency information. However, full-range speakers are typically larger in size than frequency-limited satellite speakers since they usually include large woofers.

Note: If you wish to retain the factory preset that appears on any menu line, simply press the ▼ **Menu Control** button ◐ to skip that item and move to the next setting.

When the Frnt L/R Spkrs line is highlighted, use the ◀ or ▶ **Menu Control** buttons ◐ to select LARGE or SMALL in accordance with the definition above. When SMALL is selected, all signals assigned to the front left/right speakers that are below 100Hz will be sent to the subwoofer output. When LARGE is selected, the front left/right speakers will receive a full-range signal. For installations where you have both small satellite *and* an additional set of full-range speakers, or dedicated front channel subwoofers connected to the front channel outputs, an additional option SM+LG is available. In this mode, subwoofers and their crossover networks are deactivated when in the STEREO mode.

When the desired setting for the front L/R speakers has been set, press the ▼ **Menu Control** button ◐ once, so that CENTER is highlighted. Here, make the same choice as to a LARGE or SMALL setting, depending on the type of speakers installed. Use the ◀ or ▶ **Menu Control** buttons ◐ to make your selection. When SMALL is selected, all sounds below 100Hz assigned to the center channel will be sent to the subwoofer output. When LARGE is selected, the center speakers will receive a full-range signal. An additional option here is NONE, which should be selected if no center channel speaker is installed.

Once the center channel setting has been made, press the ▼ **Menu Control** button ◐ so that Surrnd Spkrs is highlighted. Again, make a choice as to LARGE or SMALL, using the ◀ or ▶ **Menu Control** buttons ◐ to make your selection. When SMALL is selected, all sounds below 100Hz assigned to the left and right surround channels will be sent to the subwoofer output. When LARGE is selected, the surround speakers will receive a full-range signal.

After selecting the surround speaker type, press the ▼ **Menu Control** button ◐ so that Surrnd Config is highlighted. Use the ◀ or ▶ **Menu Control** buttons ◐ to select the specific type of surround sound speakers installed and how they are connected from the following choices:

- Select DUAL DRV when Citation, Fosgate•Audionics or other approved Dual Drive speakers are connected to the 5.0. Make certain that the switch on the rear of the speaker is set to the Dual Drive position.
- Select MAIN+AUX when separate, point-source speakers are installed on both the side and rear walls of the listening room.

- Select MAIN when conventional point-source speakers are installed. They should be connected to the **Back Channel Outputs** ❽ on the rear panel.

After selecting the surround speaker configuration, press the ▼ **Menu Control** button ❶ so that Subwoofers is highlighted. Use the ◀ or ▶ **Menu Control** buttons ❶ to select the specific type of surround sound speakers installed and how they are connected from the following choices:

- Select STEREO when two subwoofers are installed and connected to the **Stereo Subwoofer Outputs** ❾. When this option is chosen, audio below 100Hz will be sent to these speakers from the front left/right and/or center channels, based on the configuration settings that have been made for those outputs.
- Select MONO when only a single subwoofer is installed and connected to the **Mono Subwoofer Output** ❻. When this option is chosen, audio below 100Hz will be sent to these speakers from the front left/right and/or center channels, based on the configuration settings that have been made for those outputs.
- Select LFE ONLY when you wish to have audio below 100Hz sent to the **Mono Subwoofer Output** ❻ only when a special LFE track is detected from the playback of a Dolby Digital source. When this option is selected, a full-range signal will be sent to any of the other speaker channels that are configured to the LARGE setting.
- Select NONE when no subwoofers are installed.

Note: As is the case with many of the menu settings, the speaker setup is a highly interactive process. In order to prevent the selection of incorrect system configurations, the 5.0 automatically prevents certain selections from being made when the result would cause possible damage to speakers, or an unacceptable sound field. For example, the LFE ONLY subwoofer option will only appear when at least one of the other speaker channels is set to the LARGE setting. This assures that low-frequency sounds will not be sent to speakers incapable of handling it, while making certain that there is some means to reproduce low-frequency sounds through your system. When menu items described in this manual do not appear, it does **NOT** indicate a fault with the 5.0. Rather, it means that the system's internal safeguards have blocked an inappropriate choice.

When you have finished with the speaker type configurations, press the ▼ **Menu Control** button ❶ so that Speaker Distances -> is highlighted. Press the ▶ **Menu Control** button ❶ to move to the Speaker Distances menu.

Note: Whenever a "->" appears at the end of a menu line, this is the indication that there is an additional sub-menu that contains the choices or option listings for the main menu line item.

At this point you should have the measurements from each of the speakers to the prime listening position, or "sweet spot." The information from these distances will be used by the 5.0 to automatically calculate the delay times used in the various modes. Accurate data is important for optimal system performance.

For accurate imaging, the distance from the center channel speaker to the left- and right- front speakers should be equal. The distance between either the left-front or right-front speaker and the prime listening position, or "sweet spot" should be identical.

When the Speaker Distances menu (Figure OSD-5) appears, press the ▼ **Menu Control** button ❶ once so that the Front L/R Spkr is highlighted. Use the ◀ or ▶ **Menu Control** buttons ❶ to enter the distance between either the front-left or front-right speaker and the prime listening position.

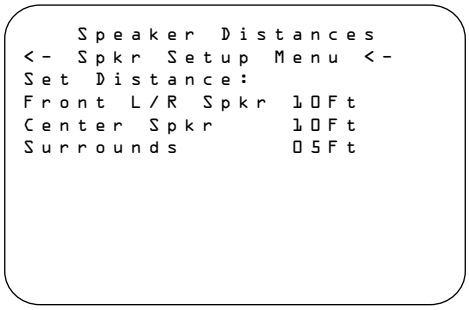


Figure OSD-5

After the distance information has been entered for the Front Left/Right speakers, press the ▼ **Menu Control** button ◐ so that `Center Spkr` is highlighted, and repeat the procedure for the distance from the center channel speaker to the prime listening position using the ◄ or ► **Menu Control** buttons ◐.

Finally, press the ▼ **Menu Control** button ◐ so that `Surrounds` is highlighted, and repeat the procedure once more for the distance from the surround speakers to the prime listening position using the ◄ or ► **Menu Control** buttons ◐. If separate side and back surround speakers are installed, enter the distance to the closer speaker.

When all distance information has been entered, press the ▼ **Menu Control** button ◐ so that the `<- Spkr Setup Menu <-` is highlighted, and then press the ◄ **Menu Control** button ◐. This will return you to the main `Speaker Setup` menu (Figure OSD-4).

Note: The second line on most menu screens, directly below the top line that contains the menu's title, will typically contain the name of the prior menu bracketed by "<-" at either end. This is your instruction that whenever this line is highlighted, pressing the ◄ **Menu Control** button ◐ will return you to the prior menu, or exit the menu system completely when `<- Exit Menus <-` appears.

The final step in the speaker setup process is to calibrate the speaker output levels. To begin this process, press the ▼ **Menu Control** button ◐ until `Calib Speaker Levels ->` is highlighted.

Caution: When you proceed to the next step, a test noise signal will immediately be heard from one of the speakers in the listening room. It is advisable that anyone who is sensitive to loud noises leave the room before taking the next step in the configuration process.

Press the ► **Menu Control** button ◐ to move to the `Sound Level Calibration` menu (Figure OSD-6). As soon as you enter this menu, the test noise will appear, enabling you to calibrate the output level of the 5.0 so that the sound from each speaker location is equal. This is essential for accurate surround production.

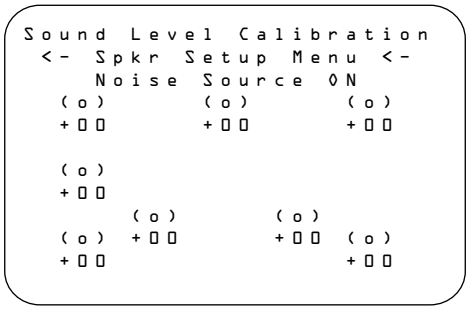


Figure OSD-6

Press the ▼ **Menu Control** button ❶ and note that the words `Noise Source ◊N` will be highlighted. If you wish to temporarily silence the test noise at any point during this step, press the ▼ or ▲ **Menu Control** buttons ❶ until this line is highlighted. Then, press the ◀ or ▶ **Menu Control** button ❶ until the display changes to `Noise Source ◊FF`. The configuration process may be resumed by using the buttons to turn the display back to `Noise Source ◊N`.

Before starting the formal configuration process, turn the test noise off and look at the on-screen display. It should contain a speaker present indication `(□)` and a level offset indication of Zero `+□□` at each speaker location established in the previous steps. For example, the configuration shown above in Figure OSD-6 is for a full complement of speakers: left, center and right fronts, Dual Drive surrounds and stereo subwoofers. Your screen display will differ if there is a mono subwoofer or different surround speaker configurations.

If all speakers appear where they should, the next step is to verify that they are properly connected. Turn the `Noise Source` back on, and press the ▼ **Menu Control** button ❶ once. Use the **Volume Controls** Ⓑ 8 to adjust the volume level if needed.

Note that the highlight will move to the icon for the front speaker, as indicated by a highlight for that position (Figure OSD-7).

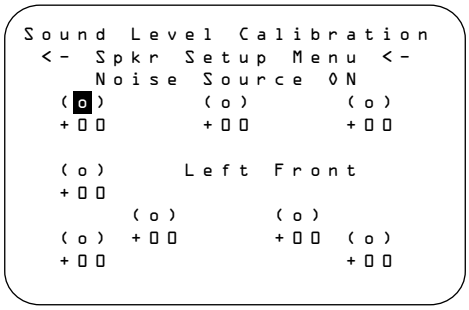


Figure OSD-7

In addition, the words `Left Front` will appear in the middle of the screen, or on the right side of the front panel display. Press the ▼ **Menu Control** button ❶ to advance the active speaker, and note that the sound location will change. If all speakers have been properly connected, the sound will emanate from the speaker location that matches the on-screen display. If all speaker locations match the displays, proceed to the next step.

If any position you hear sound from a speaker that **DOES NOT** match the on-screen indication, press the **Menu** button Ⓗ three times so that the on-screen displays go out. Turn the 5.0 off using the **Master Power** button 1, and turn off all power amplifiers connected to the 5.0. To correct the mismatch, make certain that the connections are corrected, turn the 5.0 and the amplifiers back on, and then use the instruction shown above to return to the `Sound Level Calibration` menu (Figure OSD-6).

When all amplifier and speaker connections have been verified, press the ▼ **Menu Control** button ❶ so that the `Left Front` speaker is highlighted (Figure OSD-7) and use the **Volume Controls** Ⓑ 8 so that the test noise is at a comfortable level. For more accurate calibration of the system, it is recommended that a sound-pressure level meter be used, and that the first calibration be made to an SPL level of 75dB, at the "C Weighting/Slow" setting on the meter.

Note: The use of a properly calibrated SPL meter in setting the output levels is critical in order to achieve the maximum performance from the 5.0. If you do not have an SPL meter, or are unfamiliar with its use, it is strongly recommended that a trained installer assist with this portion of the system installation.

Once the reference level has been set at the Left Front speaker, press the ▼ **Menu Control** button ❶. The test noise will move to the center speaker, as indicated in the on-screen display. Using the ◀ or ▶ **Menu Control** buttons ❶, adjust the sound level so that it is equal to the level just set at the Left Front speaker. This may be done either by careful listening or with a sound pressure level meter, but use of the meter is strongly recommended to achieve the most accurate match.

Note: It is important that the output level for all channels be made with the ◀ or ▶ **Menu Control** button ❶. When they are used, you will see the reference offset indication that appears below the speaker position icon change to a positive or negative number. **DO NOT** use the main system Volume Control to adjust anything other than the Left Front channel when the reference level is being established.

Once the Center speaker's level has been matched to the reference, press the ▼ **Menu Control** button ❶ again and the test noise will move to the Right Front speaker. Repeat the adjustment procedure as explained above until the output level is equal to the previous two speakers.

After adjusting the Right Front speaker, press the ▼ **Menu Control** button ❶ to move to the first available surround speaker. Make the adjustment and continue to use the ▼ **Menu Control** button ❶ to move to each succeeding speaker when complete.

After one adjustment of all speakers, including any subwoofers that are connected to the system, repeat the process one more time to double-check that all speakers have an equal output level.

Once you are satisfied that all speakers output the test noise at an equal level, press the ▼ **Menu Control** button ❶ until <- Spkr Setup Menu <- is highlighted at the top of the screen, and press the ◀ **Menu Control** button ❶ to return to the main Speakr Setup menu. If no further speaker setup or calibration adjustments are required, press the ▼ **Menu Control** button ❶ one more time so that <- Main Menu <- is highlighted at the top of the screen and press the ◀ **Menu Control** button ❶ to return to the Main Menu.

Program Setup

The Citation 5.0 may be programmed with up to twelve separate program profiles, each of which may combine any of the audio and video inputs along with various source controls. Once these profiles are established, they may be assigned to either the "Watch" or "Listen" menus, or both, for easy selection.

The 5.0 is shipped with factory defaults for program profiles as shown in Appendix A, but these generic choices may be edited to suit the specific need of your system as shown below.

To modify the individual program profiles to suit your system preferences and signal sources, press the **Menu** button ❽ and note that the Main Menu (Figure OSD-3) appears. Press the ▼ **Menu Control** button ❶ six times until the words Program Setup are highlighted on the screen. Next, press the ▶ **Menu Control** button ❶ to go to the Programs Menu (Figure OSD-8).

```
        Programs Setup
<- Main Menu <-
Program              1
Name                 LD analog
Audio Input          A1
Input Level          +00
Input Balance        AUTO
Video Input          COMP-1
OSD Display          ON
Triggers On          NONE
```

Figure OSD-8

The second line, just below the line indicating how to return to the "Main Menu," contains the program number. Remember that this number only defines the sources and conditions that you attach to it in the following steps. It **DOES NOT** refer to any specific input connection on the 5.0's rear panel.

Before proceeding it is a good idea to have a chart of which input sources are connected to each of the rear panel inputs. This will speed the installation process. A worksheet for this purpose is contained in Appendix B. It is also a good idea to review the factory default settings, as they may provide a starting point from which to model your system.

To select a program to customize, press the ▼ **Menu Control** button ◑ so that `Program` is highlighted. Next press ◀ or ▶ **Menu Control** buttons ◑ to select the Program Profile that you wish to edit. When the Program Profile number appears, press the ▼ **Menu Control** button ◑ so that `Name` is highlighted.

This option permits you to change the name associated with this profile to a name that describes the input source. This name will appear whenever the Program Profile is selected in both the front panel and on screen displays. Use any name that best suits your system requirements, such as "VCR-1," "Cable Box" or any other descriptive phrase that helps you to remember which combination of audio and video equipment is connected to this Program Profile.

To change the program's name, press the ▶ **Menu Control** button ◑ and note that the first letter is highlighted. By repeatedly pressing the ▲ or ▼ **Menu Control** buttons ◑ you may change the letter to any upper- or lower-case letter, the numerals 0–9 or a variety of symbols. The ▲ **Menu Control** button ◑ moves forward through the alphabet; the ▼ **Menu Control** button ◑ moves backward. (Holding the button down allows continuous scanning.) After selecting the first letter, press the ▶ **Menu Control** button ◑ to move one space to the right, and select the second character as you did the first. Should you make an error or change your mind, use the ◀ **Menu Control** button ◑ to move one space to the left.

Up to ten characters may be entered, although all spaces need not be used. When you have entered the Program Profile name, press the ◀ or ▶ **Menu Control** buttons ◑ until all of the letters on the line are highlighted. At this point you may press the ▼ **Menu Control** button ◑ to move to the next line.

At the `Audio Input` line you may associate any of the analog or digital audio inputs with the Profile. Press the ◀ or ▶ **Menu Control** buttons ◑ to scroll through the list of input numbers. Note that inputs 1 through 6 are prefixed "A," as they are analog inputs. Inputs 7 through 10 are coaxial (electrical) digital, while 11 and 12 are optical digital inputs; all are prefixed "D". Unlike the Program Profile numbers, these numbers **DO** correspond directly to the rear input connection numbers. In addition, as you scroll through the inputs you will hear the source through the system to verify that you have selected the proper input.

After selecting the audio input to be associated with this program, the choices on the balance of the menu will change. One set of menu choices (Figure OSD-8 on page 37) appears when an analog input, which are inputs A1 through A6, is selected, while a different set of choices (Figure OSD-9 on page 39) appears when one of the digital inputs, which are D7 through D12, are selected.

For the analog inputs, press the ▼ **Menu Control** button ◑ so that `Input Level` is highlighted. This is best done with the source in the Play mode with a representative program playing. While the source is playing, press the ◀ or ▶ **Menu Control** buttons ◑ so that the front panel input level indicators show a constant indication between the `+0` and `+3` marks. This is done to compensate for audio sources which have either low or high outputs, to ensure that the surround-sound decoding circuits in the 5.0 have the proper amount of signal to work with. It also ensures that as various audio sources are selected, their levels are approximately equal.

When this adjustment is completed, press the ▼ **Menu Control** button ◐ once so that `Input Balance` is highlighted. By pressing the ◄ or ► **Menu Control** buttons ◐, you may select `Auto`, or enter a manual offset from a balanced center position (+00dB). Normally, no adjustment should be needed, but if a source always seems to favor one channel or the other, the imbalance may be corrected on this line.

If you have selected a digital audio input, the 5.0 will not display either the `Input Level` or `Input Balance` choices, as they are not applicable to digital sources. Instead, the next menu item after `Audio Input` will be `Auto Detect`, with choices of `OFF` or `ON` (Figure OSD-9).

```
        Programs Setup
<- Main Menu <-
Program            8
Name               LD digita
Audio Input        D7
(Auto Detect       ON)
Video Input        COMP-1
OSD Display        ON
Triggers On        NONE
```

Figure OSD-9

When the factory defalut of `(Auto Detect ON)` is in place, the 5.0 will automatically test an incoming digital signal to determine which type of decoding should be applied, such as Dolby Digital, PCM or DTS (when the DTS module is installed).

To "force" a certain method of processing to be tried on an incoming signal, press the ◄ or ► **Menu Control** button ◐ so that the choice moves to `OFF`. In this position, the 5.0 will always try the default-selected digital mode first. If that mode is not appropriate to the incoming signal, it will then change to the correct mode.

Whether the audio input was analog or digital, the next menu choice is the selection of the program's video source.

By pressing the ▼ **Menu Control** button ◐ again, `Video Input` is highlighted. Any of 6 composite video sources or 2 S-video sources may be selected to associate with the program being customized. Two other choices are `NONE` and `OFF`. Choosing `NONE` creates a purely audio program (e.g., CD, Tape). If `NONE` is selected, and a video monitor is in use, a blue background will be generated for the video display. The `OFF` setting sends **NO** signal to any connected video display device, preventing those video projectors whose power is controlled by the presence of an input signal to remain "off".

Note: Choosing `OFF` selects no video input, and also disables the on-screen display; it will be necessary to use the front panel display until the on-screen is reactivated by selecting any video source choice but `OFF`.

After selecting the video input for the program, the next choice to be made is whether the on-screen display will be active when this program is selected. Use the ▼ **Menu Control** button ◐ to highlight the words `OSD Display` and use either the ◄ or ► **Menu Control** button ◐ to select `ON` or `OFF`.

Please note that, as in the selection of a video source in the preceding step, selecting `OFF` will cause the on-screen display to blank, and you will have to refer to the front panel display to continue. Or, if no other menu control buttons have been pressed, simply depress either the ◄ or ► **Menu Control** button ◐ once; the on-screen display will reappear.

The last item on the Program Setup menu determines whether either or both triggers are activated when the program is selected. Press the ▼ **Menu Control** button ❙ one more time, and use the ◀ or ▶ **Menu Control** buttons ❙ to determine trigger status. If you wish to have either trigger activate for certain, but not all, sources, the `Power` option for trigger programming must be turned `OFF` in the `System Options` sub-menu titled `Program Triggers`.

As described earlier, a typical use for Trigger 1 is to turn on audio power amplifiers. If you are using power amplifier(s) which may be controlled by 6- to 12-volt trigger signals (see the Specifications section on page 69), Trigger 1 would be set to be `ON` for *all* programs.

Typical uses for Trigger 2 would be the control of devices associated with video sources. These include motorized screens and light-control devices such as electrically-operated blinds or shades. If this is what a Trigger 2 will be used for in your installation, it would be set to `ON` only in programs with which a video source is associated, and would be left `OFF` in audio-only programs.

System Options

There are a number of secondary system controls, many of a "housekeeping" nature, whose settings are normally set only once, at the time of installation. These are set at the factory to suit the needs of most users, and need not be adjusted unless you wish to change one or more settings. These adjustments are grouped in the "System Options" menu.

If you do not need to change the details of the on-screen video display, are not adding infrared sensors to the system, how loud the system is when it is turned on or set to Mute, or the operation of the two trigger outputs, you may now turn to "Operating the Citation 5.0" on page 44. You may always return to these adjustments at a later time, should you decide to change one or more settings.

To enter the System Options menu, press the **Menu** button ❚ and then the ▼ **Menu Control** button ❙ seven times, or press the ▲ **Menu Control** button ❙ once, until the words `System Options` are highlighted. Press the ▶ **Menu Control** button ❙ once, and the `SYSTEM OPTIONS` menu will appear (Figure OSD-10). As each setting is adjusted, you may proceed to the next one or exit the menus by pressing the **Menu** button ❚ until you reach the `Main Menu`, and pressing **Menu** once more.

```
        System Options
<- Main Menu   <-
OSD Position     BOTTOM
Video Standard   NTSC
IR Mode          FRONT
Power On Vol     03
Mute Volume      00
Owner            Citation
Program Triggers      ->
```

Figure OSD-10

The first menu listing refers to the position of the on-screen video display on your video monitor. Press either the ◀ or ▶ **Menu Control** buttons ❙ to select whether the display will appear at the `TOP`, `MIDDLE`, `BOTTOM`, or will not appear (`OFF`).

Note: Choosing `OFF` will immediately blank the on-screen video display, and you will have to use the front panel display to continue. Or, if no other menu control buttons have been pressed, simply depress either the ◀ or ▶ **Menu Control** button ❙ once; the on-screen display will reappear.

The next option listed is the choice of video standards. The choices, selected with either the ◀ or ▶ **Menu Control** buttons ❶ are NTSC or NTSC + PAL. NTSC (National Television Standards Committee) is the technique used in North America, parts of South America and many Asian countries to encode color in television broadcasts, and PAL (Phase Alternate Line) is the system used in Europe and most other parts of the world. If NTSC is chosen (the suggested choice for North America), all video sources used with the 5.0 will be assumed to be of that standard. If NTSC + PAL is chosen, an additional line will be added to each program profile.

Important Note: Changing this setting **WILL NOT** convert video signals from one format to the other. It only adjusts the 5.0's internal display circuitry to operate with one standard or the other.

Your 5.0 was shipped preset for the video standard in use in your area. Do not change under normal circumstances. If you do, and your video monitoring devices are not set to operate in the same standard, the video display will lose color, and may become unviewable. Press the ▼ **Menu Control** button ❶ to move to the next adjustment.

The next item on the System Options menu, IR Mode, determines whether the 5.0 will respond to control signals aimed at the sensor on the front panel, via an external pickup device connected to the **IR In** jack ⓾ on the rear panel, or both.

Important Note: Do **NOT** change this setting unless an external infrared sensor is installed, as you may lose the ability to control the 5.0 if its front panel sensor is turned off and no external sensor is connected. If this happens, the system will have to be reset (covered in a later section of this manual), which will erase all user programming. (See page 59.)

Power On Vol is the next setting that appears on the System Options menu. This setting determines the volume level to which the 5.0 returns each time it is turned on, initially set to 3. As there is no conventional volume-control knob to indicate the volume setting when power is off, this prevents any possibility of unpleasantly loud sound (or even damage to loudspeakers) when the 5.0 is turned on, regardless of how far the volume was advanced when it was last turned off. To adjust this setting, play a typical audio source and use the ▼ **Menu Control** button ❶ to highlight Power On Vol and the ◀ and ▶ **Menu Control** buttons ❶ to adjust the turn-on volume level higher or lower.

To set the volume level to which the 5.0 adjusts when the **Mute** button ⓭ 7 on the remote or front panel is pressed, press the ▼ **Menu Control** button ❶ to highlight the words Mute Volume, and then use the ◀ and ▶ **Menu Control** buttons ❶ to select the preferred level.

While selecting "0" will turn off the sound completely, some users prefer to reduce the sound to a low, but still audible, level that allows telephone conversations or other activities.

After adjusting Mute Volume, pressing the ▼ **Menu Control** button ❶ one more time will highlight Owner. "Owner" is the name displayed on the on-screen display when the 5.0 is turned on. "Citation 5.0" is displayed by default; you may enter your name here, up to a maximum of 12 characters.

As described earlier in the section on naming each Program profile, press the ▶ **Menu Control** button ❶ and note that the first letter is highlighted. By repeatedly pressing the ▲ or ▼ **Menu Control** buttons ❶, you can change the letter to any upper or lower case letter, the numerals 0–9 or a variety of symbols. The ▲ **Menu Control** button ❶ moves forward through the alphabet; the ▼ **Menu Control** button ❶ moves backward. (Holding either button down allows for rapid scanning.)

After selecting the first letter, press the ▶ **Menu Control** button ❶ to move one space to the right, and select the second character as you did the first. Should you make an error or change your mind, use the ◀ **Menu Control** button ❶ to move one space left. When you have entered the desired text, press the ◀ or ▶ **Menu Control** buttons ❶ until all of the letters on the line are highlighted.

You may now press the ▼ **Menu Control** button ❶ to move to the `Program Triggers` menu (Figure OSD-11).

```
      Program Triggers
<- Sys Options Menu <-
Trigger 1         MAIN
Power             ON
Mute              OFF
Display Dim       OFF
-------------------------
Trigger 2         MAIN
Power             ON
Mute              OFF
Display Dim       OFF
```

Figure OSD-11

This menu is divided into two sections, one for each of the two trigger jacks on the rear panel. The trigger jacks may be used to control accessory devices designed to accept 6- to 12-volt control signals, as described in the "Program Setup" section of this manual starting on page 37. The settings for the bottom section, affecting Trigger 2, are set in a similar fashion.

The state of the first line determines whether the trigger is activated when the main listening area is in use, or the remote zone is in use. If set (by pressing the ◀ or ▶ **Menu Control** buttons ❶) to operate when the remote zone is in use, no other options are available. If set to operate when the `MAIN` listening area is in use, three options are available, appearing on the next three lines.

The first option, `Power`, activates the trigger whenever the 5.0 is turned on. This is the most common use for `Trigger 1`, using it to control the power amplifier(s) used in conjunction with the 5.0. If you wish to select this option, highlight `Power` by pressing the ▼ **Menu Control** button ❶, then press the ▶ **Menu Control** button ❶ to make the choice `ON`. By connecting the **Trigger 1 Output** jack ⓫ to the Trigger Input of your Citation, or other trigger-controlled power amplifier, it will be turned off and on automatically by the 5.0.

If the `Power` option is selected to control the trigger, the next two choices, `Mute` and `Display Dim` will have no effect on the trigger. If `Power` is **NOT** selected, then either (or both) of these lines may be set to `ON` by highlighting the line(s) and using the ▶ **Menu Control** button ❶ to set the state of the line(s) to `ON`. This will result in the trigger signal being present when either the Mute function has been selected or the Display has been dimmed, or both, depending on the selections you have made.

After setting the conditions under which Trigger 1 is activated, you may use the bottom section of this screen to set the conditions under which Trigger 2 is activated. If you are using Trigger 2 to activate video-related accessories (turning on a video projector, activating an electrically-operated screen, and so on), you may simply "tell" the 5.0 to turn Trigger 2 on when video sources are selected by use of the last option in the `Program Setup` menu (see page 39). You may wish, however, to use it to control some other function which you could then activate by dimming the display of the 5.0. This is a very handy "extra" remote control function!

Editing Watch and Listen Lists

It is easy to edit both the Watch and Listen menus so that your preferred program sources appear on each menu (Figures OSD-12 or OSD-13). These are the menus which are seen when the **Watch** G or **Listen** F buttons are pressed. You may have as many as eight sources appear on each menu, or as few as one. You may also edit these menus so that the same source appears on both menus.

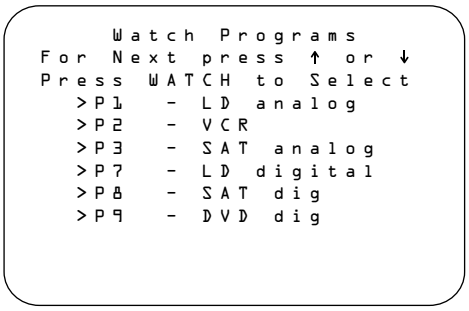


Figure OSD-12

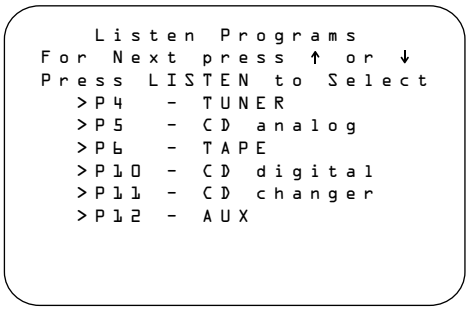


Figure OSD-13

To edit the Watch and Listen menus, press the **Menu** button H and press the ▼ **Menu Control** button I three times to highlight `Edit Watch List` or four times to highlight `Edit Listen List`. Press the ▶ **Menu Control** button I when you have highlighted the list you wish to edit, and it will appear on the video screen (Figures OSD-14 or OSD-15).

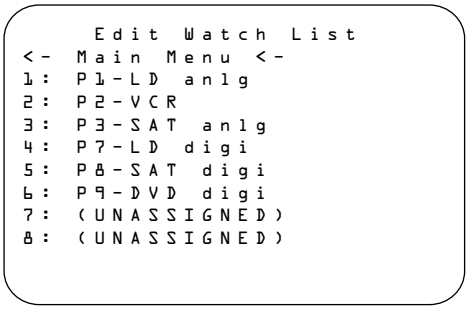


Figure OSD-14

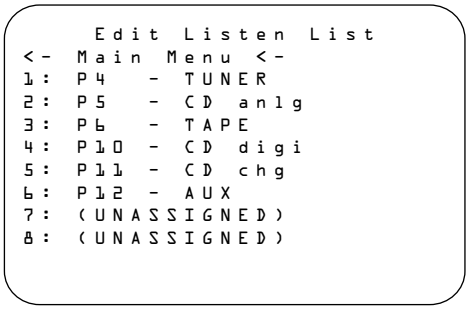


Figure OSD-15

Press the ▼ **Menu Control** button I to highlight the source you would like to change or remove from the menu. To change it, press the ◀ or ▶ **Menu Control** button I until the desired name appears, and then move to the next line to be changed, or press the **Menu** button H to store your change. If you wish to remove this source from the Watch or Listen menu, simply press the ◀ or ▶ **Menu Control** button I repeatedly until `(UNASSIGNED)` appears. Please note that you cannot choose `UNASSIGNED` as an option for the presently-selected source. Select another source before trying to `UNASSIGN` a source currently selected.

Operating the Citation 5.0

After installing and configuring the Citation 5.0, and making any desired initial settings, normal operation is a simple matter, thanks to its powerful microprocessor and a sophisticated remote control that allows most changes to be accomplished by pressing one button. Please note, however, that due to the large number of functions and features controlled by the system microprocessor, there will occasionally be slight delays in executing commands you have given it, not unlike those experienced when using a computer.

Turning On and Off

The **Master Power** button 1 should remain in the ON position under normal circumstances. Simply press it in until you hear a click, and release. A green **Standby LED** 6 will illuminate, indicating the 5.0 is in its Standby mode, and is ready to operate.

The 5.0 may be turned fully on by either pressing the large **Standby** button 2 just above the **Master Power** button 1 on the front panel, or by pressing either the **Watch** button C or the **Listen** button F on the remote control. Pressing any of the six **Analog Input** or six **Digital Input** direct-address buttons under the sliding door on the remote control will also turn the 5.0 on, while selecting the program whose number was pressed. Note that pressing the **Standby** button A on the remote control **WILL NOT** turn the 5.0 on, although it *will* return it to the Standby condition when your listening or viewing session is completed.

As the 5.0 turns on, the word CITATION in the **Power Indicator** 5 on the front panel will glow a soft blue, the green standby indicator will extinguish, and a welcome screen (Figure OSD-16) will briefly appear on the video screen, if it is on. A similar display will also appear on the front panel (Figure FPD-1), changing in a few seconds to a status report (Figure FPD-2) indicating the program selected, its source, the Surround mode selected and present volume setting.

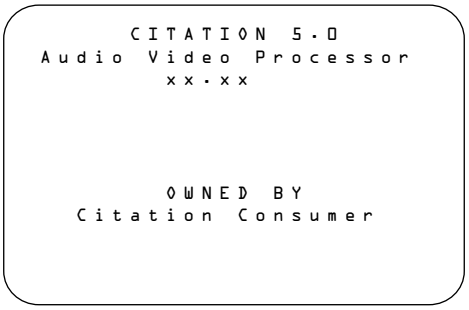


Figure OSD-16

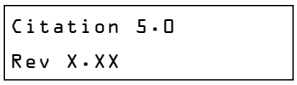


Figure FPD-1

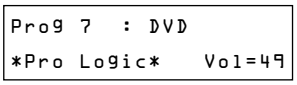


Figure FPD-2

To put the 5.0 back in the Standby mode, either press the front panel **Standby** button 2 or press the **Standby** button A on the remote control. A message of POWER OFF - STANDBY will appear briefly both on the on-screen display (Figure OSD-17) and the front panel display (Figure FPD-3). The **Power Indicator** 5 will go out, and the green **Standby LED** 6 will light.

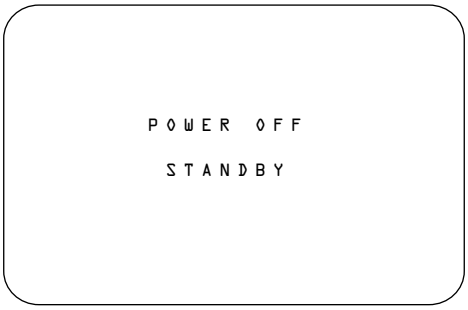


Figure OSD-17

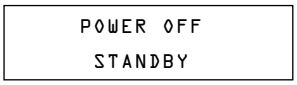


Figure FPD-3

If the 5.0 will not be used for an extended period (such as a vacation), you may wish to turn it off completely by pressing the **Master Power** button **1** in until it clicks, then releasing it to the extended position. The green **Standby LED** **6** will extinguish.

Source Selection

After turning the 5.0 on, select the video or audio source you wish to listen to by pressing either the ▲ or ▼ **Watch** buttons **3** or the ▲ or ▼ **Watch** selectors **4** on the front panel, or by pressing the **Watch** button **C** or the **Listen** button **F** on the remote control. While either will allow you to select the source of your choice, the two sets of buttons behave somewhat differently.

Using the front panel **Watch** or **Listen** buttons **3** **4** produces a display on both video monitor (Figures OSD-18 or OSD-2) and the front panel (Figure FPD-2) which indicate the Program number selected, and relevant Program details, including source name, Surround mode and current volume setting. Pressing these buttons allows you to cycle through either the Listen or Watch programs, which may be the factory-set default programs (described on page 43 of this manual) or programs you have modified to suit your preferences as described in the “Program Setup” section of this manual starting on page 37.

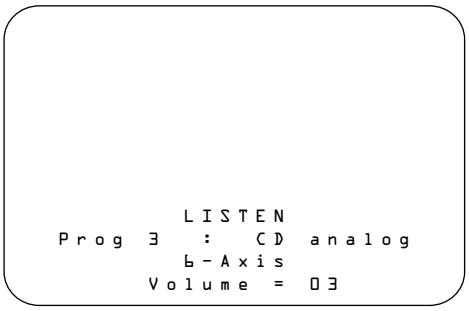


Figure OSD-18

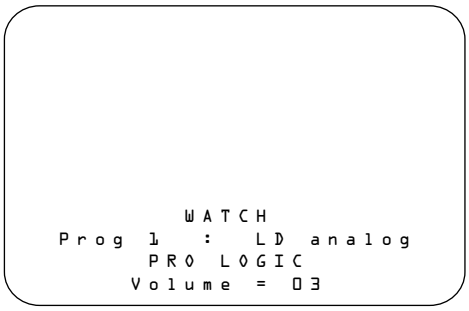


Figure OSD-2

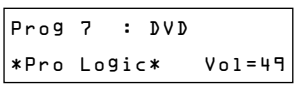


Figure FPD-2

Please note that the display on your video monitor (if it is turned on) will blank out after a few seconds, but that the information remains in the front panel display indefinitely, unless you press the **Display** button **E**, which will turn it off and on with each button press.

If you wish to use the **Watch** Ⓒ or the **Listen** Ⓕ button on the remote control to select a video or audio program, the front panel display will show the program number and its associated source, (Figures FPD-4 or FPD-5), and the on-screen display (Figures OSD-12 or OSD-13) will display a choice of six video or audio program profiles, respectively. These may be the factory-set default profiles, as described in Appendix A, or may be the program profiles you have defined in the "Program Setup" section of this manual starting on page 37, and selected to be displayed in the Watch and Listen menus in the section "Editing Watch and Listen Lists" on page 43, up to a maximum of eight profiles per list.

Figure FPD-4

Figure FPD-5

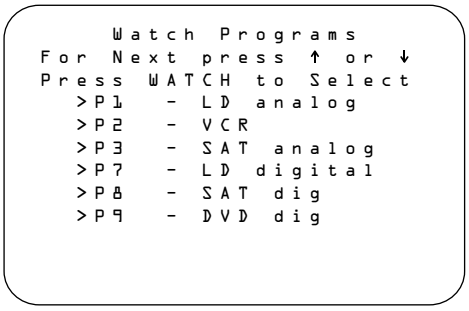


Figure OSD-12

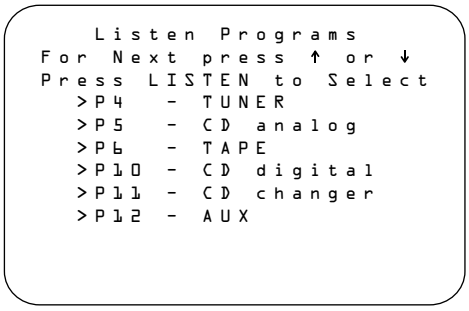


Figure OSD-13

To select a program, press the ▲ or ▼ **Menu Control** button ❶ on the remote control to highlight the Watch or Listen program desired, then press the **Watch** Ⓒ or the **Listen** Ⓕ button a second time. You have now selected that program; the on-screen display will go off, and the front panel will display the number of the program, the name of the source, Surround mode in use, and the present volume setting.

Setting the Volume Level

When the 5.0 is turned on, it will always be at the level set in the System Options menu (Figure OSD-10). The volume may then be raised or lowered with either the front panel **Volume Control** buttons 8 or the **Volume +/–** buttons Ⓑ on the remote control.

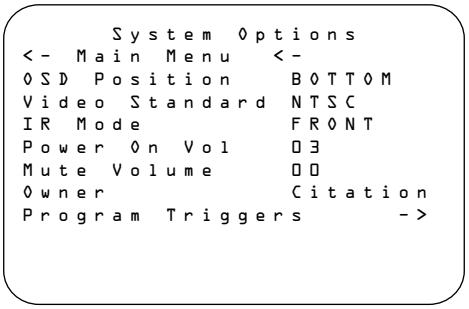


Figure OSD-10

As the volume level is raised or lowered, a visual indicator will appear both on the front panel display (Figure FPD-6) and the on-screen display (Figure OSD-19) providing a graphic display of the volume level.

Figure FPD-6

Figure OSD-19

The present volume level may always be seen in the lower right corner of the front panel display (see Figure FPD-1 on page 32), as long as the display has not been turned off.

Should you wish to quickly lower the volume at any time, such as to answer the telephone, simply press the **Mute** button 7 D on the front panel or remote control. The word MUTE will appear in both the front panel display and the on-screen display, to remind you that the Mute function has been engaged. The on-screen display will initially read SYSTEM MUTE (Figure OSD-20), changing to Volume Muted (Figure OSD-21) after a few seconds.

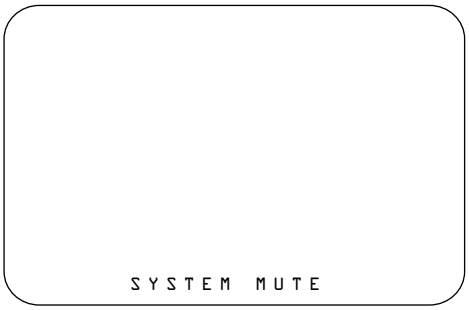


Figure OSD-20

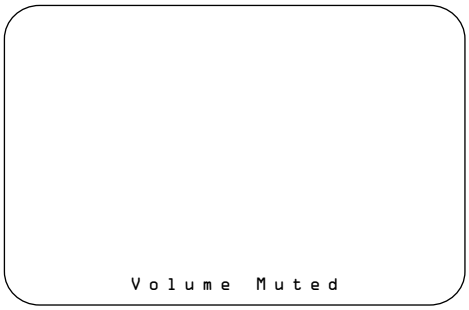


Figure OSD-21

Note: The volume level to which the system lowers in Mute is adjustable when in the System Options menu, as described on page 41.

You may release the mute function and return to the original volume setting by pressing either **Mute** button 7 D a second time, or by raising or lowering the volume using the front panel **Volume Control** buttons 8 or the **Volume +/–** buttons B on the remote control.

Setting the Balance and Level Trims

Unlike conventional stereo receivers, where left/right balance is often adjusted, the true "balance" controls for a surround receiver should not normally be adjusted. Sound level balance should be adjusted using the Output Level Adjustments in the Speaker Setup menu. (See the Speaker Setup section starting on page 32 for more information.) However, when the seating positions in a room are temporarily changed, or when you wish to adjust the left/right balance or front/back fade to accommodate a particular piece of program material or the tastes of a different listener, that is easy to do.

Press the **Balance Control** button Ⓜ and note that an X/Y display will appear on the screen display (Figure OSD-22). An asterisk will appear at the center of the display to indicate the spot that is the acoustic center of the room, based on the output level settings established in the Speaker Setup menus. Note that this **MAY NOT** be the physical center of the room, depending on where the listener making the output level adjustments was positioned.

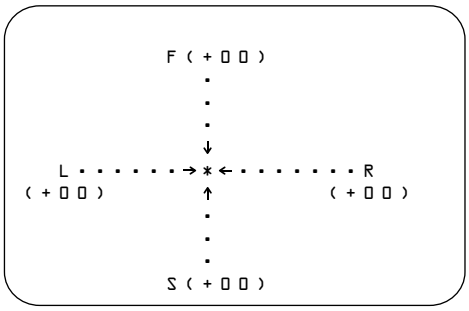


Figure OSD-22

To move the "center" of the room, press the ▲ ▼ ◀ ▶ **Menu Control** buttons ⓘ. The numbers in parenthesis under the indicators for each channel will change to show the exact offset from the true center (Figure OSD-23) and the asterisk will move to a position following the location of the room's center.

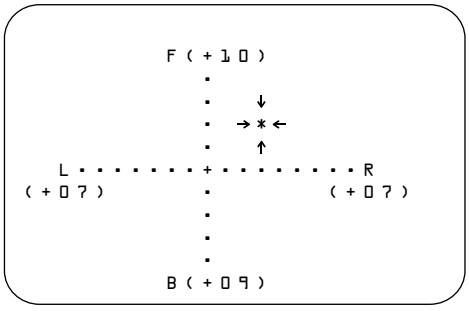


Figure OSD-23

If no further balance adjustment is required, press the **Balance Control** button Ⓜ twice to return to normal operation.

Output Level Adjustment Trims

The main output level adjustments for the 5.0 should be made using the internal test tone, following the procedures outlined in the section of this manual describing Sound Level Calibration (see page 35). However, in some instances you may wish to change the levels using an external test signal generator, a test disc or some familiar piece of audio program material. The 5.0 permits these adjustments to be made, though they are not recommended as a substitute for initial calibration using the internal generator.

To trim the output levels using an external source, first follow the procedures outlined for Sound Level Calibration as shown on page 35. Next, make certain that the proper input source is selected.

To begin the procedure, press the **Balance Control** button Ⓜ twice. The first press will bring up the standard balance level adjustments. The second press will take you to the `Trim Speaker Levels` menu (Figure OSD-24). When the menu appears, use the ◀ ▶ **Menu Control** buttons ⓘ to raise or lower the output level. Note that the changes from the internally-set levels will appear as a positive or negative offset below the speaker position indicator.

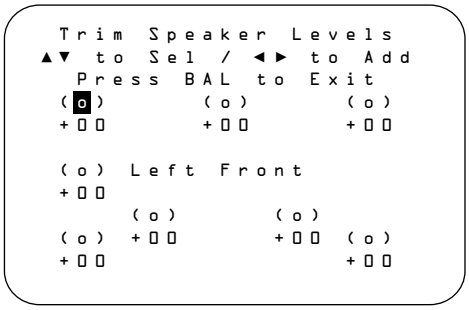


Figure OSD-24

When the adjustment for the front left channel has been made, press the ▼ **Menu Control** button ❶ to move to the next channel that requires adjustment. Repeat the procedure outlined above, and then continue to any additional channel adjustments.

When all channels have been adjusted to the appropriate matching output level, press the **Balance Control** button Ⓜ to return to normal operation.

Pressing the **Cancel** button Ⓖ any time the on-screen menus are **NOT** present will eliminate user adjustments in the "Balance" and "Trim Speaker Levels" screens.

Important Note: The Trim Speaker Levels menu adjustments should not be used as a substitute for proper output level adjustments, or as a replacement for the balance controls or volume settings.

Secondary Remote Controls

The lower section of the remote control **Secondary Control Cover** Ⓝ may be slid down to reveal a panel of 35 small buttons used to control secondary functions and to give direct access to some settings normally accessed through menus. These are functions used only occasionally, or associated with a remote zone; "hiding" them under this sliding panel keeps the remote control's main panel uncluttered, and the frequently used buttons easy to access. The action of each button will be seen on the front panel and on the video display as each is pressed.

The group of three **Center Mode Adjustments** buttons Ⓞ on the first row of the remote control's subpanel control the center channel. The first button turns the center channel **On** and **Off** with alternate presses. The button marked **Wide** creates a diffuse center soundstage by feeding a small amount of the center channel signal into the left and right front channel speakers. The third button of this group **Boost**s the center channel level to create a slightly narrower soundstage.

The next button is the **Mono Mode Selector** ⒷⒷ. Pressing this button will switch the system into monophonic mode when pressed, returning to the previous mode when pressed a second time.

The last button in the top row is the **Reset** button ⒶⒶ. Pressing this button allows quick resetting of the system's Surround modes and program profiles to factory default settings (Figure OSD-25), also possible using the `System Reset` menus which are explained in detail in the Advanced Features section of this manual. When this menu appears, pressing the ▲ **Menu Control** button ❶ will reset the Surround modes; pressing the ▼ **Menu Control** button will reset all program profiles. Should the button be pressed accidentally, simply press the **Cancel** button Ⓖ.

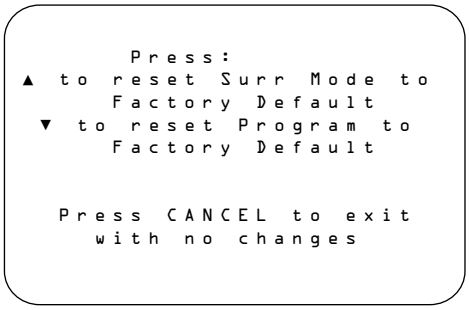


Figure OSD-25

Below the top line of secondary controls, there is a group of six **Analog Input Program** buttons P which select the first six program profiles without having to use the **Watch** and **Listen** buttons C F; they offer direct access. Just below this group of buttons is another group of six **Digital Input Program** buttons Q. These offer direct access to program profiles 7 through 12, typically used for digital sources.

Note: Reference to "Analog" and "Digital" is only accurate if you have programmed the program profiles using this convention; 1 through 6 for analog sources, and 7 though 12 for digital sources.

The **Panorama Control** button Z will cycle through the settings for the panorama attribute which is associated with many of the Surround modes, from OFF through to MAXIMUM. If a Surround mode is in use for which panorama is not an attribute (such as Dolby Digital), this button will have no effect.

The **Hi-EQ** button X turns whatever high-frequency equalization is associated with the present Surround mode on and off alternately.

The **Bass Boost** buttons Y adjust the amount of bass boost from flat to +8dB.

The **Trigger 1** and **Trigger 2 Manual Control** buttons V W toggle the settings of these control signals between "up" and "down". "Up" corresponds to the trigger signal being "on"; "down" corresponds to the trigger signal being "off". These relationships correspond to the convention used by manufacturers of electrically-operated projection screens, devices frequently controlled by trigger signals. These buttons will override the state of the triggers as set in the Program Setup and Program Triggers menus. The only exception to this rule is that any trigger which has been set to operate when the remote zone is activated **WILL NOT** be overridden by these buttons. Returning the 5.0 to Standby and then turning it on again or pressing the **Cancel** button G on the remote control will return the triggers to their previous states.

The last row of secondary controls are described in the "Advanced Features" section of this manual starting on under the heading "Remote Zone" starting on page 59.

Surround Modes

The Citation 5.0 offers the user several modes of surround sound, which can be divided into two major categories and sub-categories. A discussion follows to shed some light on what can be a confusing subject.

First, there is a division between "discrete 5.1" and "derived" types of materials. The first, "Discrete 5.1," includes Dolby Digital (AC-3) and DTS. While differing in technical details, these sources (primarily available on DVD) provide five discrete, completely separate, channels of information for the left, center and right front channels, and two stereo surround channels, *plus* a 6th channel used for limited-bandwidth subwoofer-directed sounds and special low-frequency effects, most frequently explosion, cannon fire, etc.

The reality of "5+" wide-bandwidth, completely separated ("discrete") channels provides the most realistic surround sound possible with virtually no compromises necessary in reproduction. Whether Dolby Digital or DTS, this type of multichannel recording, both for movies and musical performances, will be the predominant form of recording now that the DVD is here; a low-cost, very high-performance medium with sufficient "space available" for long-playing video and multichannel audio. The 5.0 has Dolby Digital decoding circuitry built in; DTS operation will be available in the 5.0 factory-installed, or as an upgrade for Dolby Digital-only units in the field. Contact your authorized Citation dealer for details. This manual will assume that your 5.0 has this option as it describes various surround operating modes.

The second division of types of Surround modes occurs among older movie sound tracks and conventional two-channel stereo musical recordings. These can be divided into two sub-categories; those which were recorded with specific surround information encoding, and those which were not. In both cases, more than two channels can be "derived" during playback to provide surround sound.

The 5.0 contains circuitry to provide surround decoding appropriate for both of these types of program material, and will provide convincing surround performance *even from older audio and video sources which were not specifically encoded for surround-sound operation,* but from which information can be extracted to simulate various room spaces and effects to add to the musical or theatrical experience.

Important Note: Certain Surround modes are available only from certain sources. Dolby Digital and DTS signals are **ONLY** available from audio and video recordings made specifically for Dolby Digital or DTS reproduction, and only from DVD players, laser disc players equipped with RF modulators or some computer sound cards.

The conventional PCM (Pulse Code Modulation) digital signal from a CD or laser disc player, whether in electrical or optical form, and all analog signals, contain only two discrete channels of information, and can only be used for derived modes of surround sound.

Movie Modes vs. Music Modes

In addition to the Dolby Digital and DTS formats, clearly associated with either movies or music, according to the disc being played, the several surround-sound modes available in the 5.0 can be roughly divided between those primarily intended for use when watching movies, and those more suited for music listening. The Movie modes are designed for use with surround-encoded material; usually movies, but also many television programs, radio broadcasts (frequently NPR and BBC offerings), audio CDs and video games that have been mixed for multichannel audio playback and recorded with surround information.

Lists of surround-encoded movies and television programs may be obtained from Dolby Laboratories. In North America, contact them at (415) 558-0344; In Europe, at (44) 1-793-842-100. The 5.0's Movie modes are Dolby Pro Logic and 70mm.

Music modes, conversely, utilize special circuitry to create multichannel audio from standard two-channel, or stereo, audio recordings. Use the modes when listening to conventional recordings watching two-channel television programs. Music modes incorporated in the 5.0 include Classical Rock, Jazz, 2-Channel, 3-Channel and Party.

6-Axis, exclusive to Citation, is equally suited for both encoded and non-encoded programs and recordings. This may well be the most universal of the Citation 5.0's derived Surround modes, ideal for movies and music.

Selecting Surround Modes

When you select a source to watch or listen to, the last Surround mode used with that source will automatically be chosen. You may change the Surround mode at any time in several ways. One way is to press the buttons on the remote control; press the **Dolby Mode Selectors** button ❶ for Dolby Pro Logic, which is always available. If you are using a source for which Dolby Digital is an appropriate choice, a second press of the same button will switch to that mode of operation. Pressing the **6-Axis**, **Stereo** or **Party Pre-programmed Mode Selectors** ❿ selects these modes, whose settings are listed starting on page 51 of this manual. Another way to change the Surround mode is to press either the **Cust 1**, **Cust 2** or **Cust 3 Custom Mode Selectors** ❾ on the remote control. These buttons are factory preset to Surround mode profile settings which have been found most pleasing to typical users. A typical Surround mode profile includes the mode type, such as 70mm, or Jazz, high- and low-frequency equalization settings, adjustments for surround and center speaker levels, amount of time the signal is delayed before being sent to the surround speakers (an important aspect of derived surround sound decoding), and the setting for Panorama, a special feature that can be set to expand the width of program material in three user-selectable steps.

Note: The 5.0 will only allow appropriate choices of Surround mode; it will, as example, ignore any "requests" for the Dolby Digital or DTS modes when the chosen program source cannot or is not providing the appropriate signal.

Surround Mode Definitions

Movie Modes

Dolby Pro Logic is the consumer version of the system used in theaters to separate two channels of sound from a movie sound track into separate left, center, right and surround channels. In this mode, the surround channel is mono, and limited in bandwidth. Pro Logic is a good starting point when you are choosing a Surround mode to use when listening to a movie or a surround-encoded broadcast or video game.

70mm is a Jim Fosgate design exclusive to Citation, based on Dolby Pro Logic. To increase the excitement level of surround-encoded materials, the 70mm mode uses Citation's ultra fast decoding logic and extended bandwidth in the surround channels. In this mode the back (surround) channels are capable of response up to 12kHz, rather than the lower limit of 7kHz mandated for Pro Logic circuits by Dolby Laboratories. Although even higher bandwidth is possible in the surround channels, 12kHz was chosen to preserve spectral balance in your listening room (A higher frequency range for the surrounds is not advisable as the listener is typically located closer to the speakers at home than they would be in a mover theater.) Finally, there is some controlled blending of the left/right front-channel information into the left and right back channels. This delivers an increased sense of spaciousness from most sound tracks.

The 70mm mode is excellent for use with any recording or broadcast that contains matrix-sound encoding.

6-Axis, described fully in the "Music Modes" section which follows, is an excellent surround mode for movies, as well.

Music Modes

Conventional, non-encoded two-channel recordings present a challenge when we try to reproduce them in multichannel. Unlike most modern movie sound tracks, which incorporate information to direct the microprocessor as to the proper location of specific audio signals, non-encoded recordings contain no such clues. While the use of Digital Soundfield Processing (DSP) can provide realistic surround-sound effects, its use frequently also results in a degradation of the quality of the sound, frequently as a "harshness" not originally present in the recordings.

Using Citation's proprietary surround matrix designs and 6-Axis Steering Logic technology, the 5.0 overcomes the limitations frequently associated with DSP. By carefully analyzing the spatial clues and ambient reflections which are part of most stereo recordings, the ultrafast steering logic of the 5.0, along with other proprietary circuitry, enables the soundfield processor to produce a pleasing and accurate multichannel soundfield from many types of two-channel recordings.

As with "Movies," experimentation is the key to enjoyment. The Modes' names are a guide as to what type of music they were designed for, but experiment and see which modes sound best in your listening environment.

Rock employs extremely fast steering logic, minimal delay in the stereo back channels, making it a good choice for popular music.

Jazz is perfect for vocal or acoustic music and new-age recordings. It features a wide center front-stage soundstage and a diffuse, deep back-channel sound.

Class (Classical) is designed for use with large orchestral or acoustic recordings, particularly those made in large concert halls. In this mode, the center speaker is off. The speed of the steering logic is slower in this mode, to accommodate the long transient times in classical recordings, and the surround delay is increased to simulate the way sound travels in a concert hall.

2-Channel is a two-channel stereo presentation of digital sources, often referred to as Lt and Rt.

3-Channel is similar to 2-Channel, with the addition of a center channel. No surround information is utilized.

Party produces a stereo image in both the front and rear channel speakers; no processing is done to the signal.

6-Axis is a Citation-developed method of extracting surround-sound information from *both* encoded and conventional stereo analog sources. It is a very convincing method of extracting and reproducing the original ambience of a recording, due in large part to its ability to provide stereo, not mono (as in Pro Logic), signals to the surround loudspeakers, and to create a sixth "phantom" soundsource in the center rear of the listening room. This creates a "sixth axis" where there is no loudspeaker, greatly adding to the sense of realism.

Whether working with encoded or two-channel stereo, the reproduction of derived multichannel surround sound cannot be as exact as that provided by the 5.1 discrete channels of DVD. Some degree of control and variability of how the channels are derived, steered to the correct loudspeakers, delayed and equalized tonally are necessary, and are provided in the 5.0 as different modes of surround decoding, many of which can be modified by the user. (See the description of the Customize Modes menu in the "Advanced Features" section of this Manual, page 55.)

Viewing System Status

At any time, you may press the ▼ **Menu Control** button ◐ to display the status of the system at that moment (Figure OSD-26). The screen will show whether you have selected a source from the Watch or Listen source menus, the name of the source, the specific audio and video inputs associated with that source, the Surround mode and the settings of key attributes associated with the Surround mode, such as high- and low-frequency equalization.

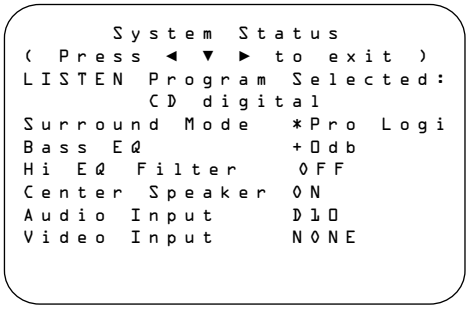


Figure OSD-26

To exit the System Status menu, simply press the ◄, ► or ▼ **Menu Control** buttons ◐ on the remote.

Viewing the Digital Mode Status

When a digital source is in use, pressing the ▲ **Menu Control** button ◐ will display the paramaters and status of an incomming digital signal (Figure OSD-27). When the signal is Dolby Digital encoded, an icon will appear for each active channel, as well as a readout of the sampling frequency, data bit rate and presence of LFE information, if applicable (Figure OSD-28).

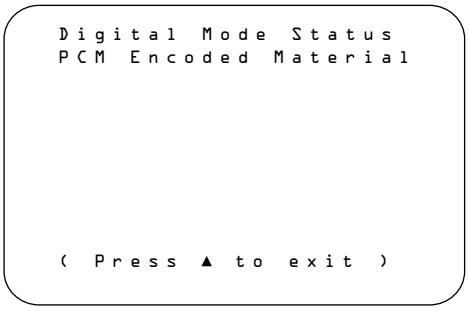


Figure OSD-27

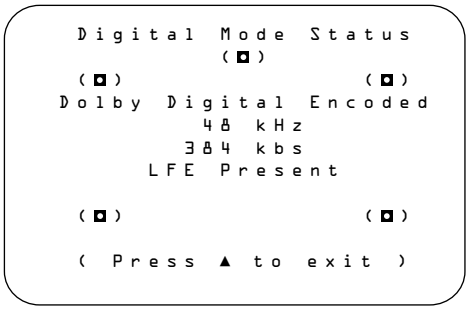


Figure OSD-28

To exit the Digital Mode Status display, press the ▲ **Menu Control** button.

Advanced Features

Customizing Surround Modes

Custom Surround modes may be defined in the Customize Modes menu. Each Surround mode has attributes which may be changed by the user, such as low- and high-frequency response, and the relative volume level of the center channel, subwoofer, and surround channels with respect to the "main," or front left and right, channels.

This menu allows you to quickly and easily modify any of the 5.0's Surround modes for optimum performance in your listening environment.

Depending on the program source which was last selected, different choices will be presented when you are in the `Customize Surround Mode` menu. Choices appropriate for analog sources will appear if the last source watched or listened to was analog; choices more suitable for digital sources will appear if the last chosen source was digital and a digital Surround mode (e.g., Dolby Digital or DTS) was used.

The same general format and procedure is followed in both cases, however:

After choosing which button on the remote control you wish to have select a customized Surround mode, select the mode to associate with that button and then the particular attribute(s) of that mode to be changed. The last step is to select the value for that attribute(s) from among the choices offered.

Because there are seven buttons and many Surround modes, a half-dozen or so attributes associated with each mode, and several choices for each attribute to be set to, there is a very large number of ways you can customize the 5.0!

Customizing Analog Sources

To customize an analog Surround mode, select any analog program source, and then press the **Menu** button ⓗ. When `Main Menu` appears, press the ▼ **Menu Control** button ⓘ two times to highlight the `Customize Modes` line, and then press the ▶ **Menu Control** button ⓘ to select this menu (Figure OSD-29).

```
Customize Surround Mode
<- Main Menu <-
Mode Button      Cust 1
Mode Type        Rock
Status           DEFAULT
Bass EQ          0dB
Filters          Shelf
Surround Level   +00
Center Level     +00
Surround Delay   00mSec
Panorama         OFF
```

Figure OSD-29

One push of the ▼ **Menu Control** button ⓘ will highlight the `Mode Button` line. Pressing the ▶ **Menu Control** button ⓘ now will cycle through the names of the remote control buttons which directly select Surround modes; **Party**, **Stereo**, and **6-Axis** ⓚ, **Dolby** ⓛ, and **Cust 1**, **Cust 2** and **Cust 3** ⓙ. `Cust 1`, `Cust 2`, `Cust 3` and `Party` can be customized, as indicated on the third line down, which reads `DEFAULT` for these choices before any changes have been made, changing to `MODIFIED` when any changes have been made, and `NON EDIT` for `6-Axis` and `Dolby`. These modes cannot be modified when directly selected by the **Dolby** ⓛ and **6-Axis** ⓚ buttons, but are presented so that you may see the settings they represent.

The next line down is Mode Type. Press the ▼ **Menu Control** button ❶ one more time to reach this line, but do note that if you have chosen either Dolby or 6-Axis on the line above (Mode Button), you cannot move below the Mode Button line. This is to preserve their factory settings *when they are selected by their dedicated buttons.*

If you have selected any Mode Button other then Dolby or 6-Axis, you may now press the ▶ **Menu Control** button ❶ to cycle through a variety of modes with attributes that can be customized.

The (analog) modes available are: Movie 2, Movie 3, Music 2, Music 3, 6-Axis, Pro Logic, Party, Rock, Class(ical), 70mm, 2-CHNL, 3-CHNL and Jazz.

(While Dolby and 6-Axis chosen directly by pressing buttons ❿ and ⓫ cannot be modified, those Surround modes can be modified when selected on the Mode Type line.)

Each of these modes is factory set to produce pleasing surround effects in the majority of typical listening environments. You may want to use the original settings for awhile before making any changes, although you may easily reset all modes to their factory settings by using the Reset Modes option on the System Reset menu (see page 59).

A brief description of these Surround modes is presented starting on page 50 of this manual.

To view and modify any of the attributes of these modes, select that mode's name on line two by pressing the ▶ **Menu Control** button ❶ until that mode is seen, and then pressing the ▼ **Menu Control** button ❶ to move down to the attribute you wish to modify and then using the ▶ **Menu Control** button to change the setting to the new value. Note that the Status line cannot be changed; its purpose is only to indicate whether the mode selected has been changed from factory settings. Once an attribute's value is changed, the Status line changes from DEFAULT (factory setting) to MODIFIED.

Note: Even if the attribute is changed back to its original setting, the word MODIFIED remains displayed unless and until the Surround Modes are reset using the System Reset options.

Changes that can be made to analog sources include adding bass boost (but not bass cut) in increments of 2dB up to a maximum of 8dB. After highlighting the line which reads Bass EQ, use the ▶ **Menu Control** button ❶ to increase the bass boost, and the ◀ **Menu Control** button ❶ to decrease it.

The next line Filters, refers to high-frequency response modification in the surround speakers only. Use the ◀ and ▶ **Menu Control** buttons ❶ to move through the choices, which are None, Shelf, 12kHz, 7kHz and HI EQ.

- Choosing None maintains full bandwidth in the surround channels.
- Selecting Shelf inserts a filter which reduces response in the rear speakers above 12kHz by approximately 6dB. The rollofff of high frequencies begins at 6kHz.
- If 12kHz or 7kHz is chosen, that sets the highest audio frequency that the surround channels will produce before attenuation begins.
- HI EQ may be desirable when watching a move to re-equalize the sound tracks, originally mixed and equalized for use in commercial theaters, to a tonal balance more appropriated for a home theater. Home acoustics may make cinema sound overly bright, and may cause listener fatigue and harshness. HI EQ, which affects all channels, will avoid this problem.

The next two lines allow you to increase or decrease the level in the surround speakers and/or the center speaker. Simply highlight the desired line with the ▼ **Menu Control** button ❶, and then use the ◀ and ▶ **Menu Control** buttons ❶ to increase or decrease the levels as desired.

The Surround Delay setting determines the length of time delay between the front and back speakers. This should be set to suit your particular taste, anywhere between 0 and 30mSec, or thousandths of a second, the maximum recommendation for home environments. (This delay is in addition to the front-to-back delay programmed during the Speaker Setup procedure.)

The last attribute that can be changed in the analog Surround modes is called Panaroma. Selecting the MINIMUM, MEDIUM or MAXIMUM settings progressively expands the front soundstage, particularly useful when listening to program material with little channel separation. Experiment with Panaroma with different program source material to see the improvement it can bring.

Customizing Digital Sources

Customizing digital sources is done similarly, although there are some differences in the modes that can be customized, and the attributes that can be changed.

Select a digital source, and a uniquely digital Surround mode, such as DTS (in units that incorporate this option) or Dolby Digital. Press the **Menu** button ⓗ. When Main Menu appears, press the ▼ **Menu Control** button ❶ twice to highlight Customize Modes. Press the ▶ **Menu Control** button ❶ to bring up this menu (Figure OSD-30), and you will see a menu similar, but not identical, to that used for customizing analog sources.

```
Customize Surround Mode
<- Main Menu   <-
Mode Button     Cust 1
Mode                DTS
Status          Modified
Bass EQ         0dB
Filters         0dB
Surround Level  +00
Center Level    +00
Subs Level      +00
Auto Mode Sel   ON
```

Figure OSD-30

The choices on the first line, Mode Buttons, from which you may select are **Dolby** ⓛ, and **Cust 1**, **Cust 2**, and **Cust 3** ⓙ. Moving down to the Mode line, the choices of modes to select from are quite different than those offered for use with analog sources.

For digital sources, the mode choices are: Dolby Digital, Late Night 1, Late Night 2, Late Night 3, Pro Logic, Class(ical), Mono, Panorama, DTS and Stereo.

While many of these modes are identical or similar to those presented for analog sources, some are unique to digital sound reproduction.

Modes described as Late Night restrict the dynamic range of the program material to avoid disturbing other household members. These modes tend to reduce the level of loud passages, and increase the level of quiet passages so that a uniform sound level is maintained. Not that music may still be played as quietly, or loudly, as desired, but that quiet and loud passages will be closer together in level.

Several Late Night modes can be selected to accommodate different types of sources one might be playing in the evening; music, videos and so on. Late Night 1 restricts the dynamic range moderately; Late Night 2 and Late Night 3 restricts the dynamic range progressively more severely.

- `Stereo` reproduces the front left and right channels through those speakers only.
- `Mono` invokes enhancement circuitry which create an enveloping soundfield from a monophonic input signal; it can be a significant improvement when watching movies with mono sound.

Once you have selected a mode to customize, you will find many of the same attributes listed which may be modified to your preference as were associated with analog modes.

Two different attributes which may be modified are the last two on the menu (Figure OSD-30). They are `Subs Level` and `Auto Mode Sel`.

- `Subs Level` gives the user the ability to raise or lower the sound level coming from the sub-woofer(s) when a particular mode is chosen. Use the ▶ or ◀ **Menu Control** buttons ❶ to raise or lower the subwoofer level as desired.
- `Auto Mode Sel`(ect), when turned off, will mute the 5.0 if the signal is of a type other than selected on the `MODE` line above. For example, if, on the `MODE` line, `DTS` has been selected and a Dolby Digital source is fed to the 5.0, it will mute until either a DTS signal is supplied or another mode is selected.

Remote Zone

If you have connected an amplifier, remote infrared sensor and video monitor to the appropriate rear panel connections of the 5.0, people in a secondary location in your home will be able to select signal sources and volume levels independent of what is selected in the primary zone. It is not necessary for the 5.0 to be turned on; power (for the 5.0) can also be controlled from the second zone.

It will be necessary to equip the remote zone with its own remote control, as all selections are made via the controls under the **Secondary Control Cover** Ⓝ *on the remote.*

Setting Up the Remote Zone

The various options available to configure the remote zone are accessed through the `Remote Zone` menu. Press the **Menu** button Ⓗ on the remote control, and then press the ▼ **Menu Control** button ❶ once to highlight `Remote Zone`. Press the ▶ **Menu Control** button ❶ to display this menu (Figure OSD-31).

```
        Remote Zone
<- Main Menu <-
1: Input-1      COMP-1
2: Input-2      COMP-2
3: Input-3      COMP-3
4: Input-4      COMP-4
5: Input-5      COMP-5
6: Input-6      COMP-6
Rem Zone Msgs   ON
Output Mode     Variable
```

Figure OSD-31

Lines 1 through 6 of this menu allows the selection of which video source will be associated with the analog (only) audio source in the remote zone. Press the ▼ **Menu Control** button ❶ to highlight `Input-1`. Then press the ▶ **Menu Control** button to select which video source (composite video sources 1 through 6, and/or S-video sources 1 and 2) will be associated with this analog input in the remote zone *only;* it may be associated with another video source in the main zone. Select a video source for each analog audio source to be accessed in the remote zone; for music-only sources, select a video input which is not connected to a video source.

After configuring the audio and video inputs, the next line down allows you to have messages concerning the remote zone status (source selected, volume level, etc.) "reported" to the main zone's displays or not. Pressing the ▶ **Menu Control** button ◐ when this line is highlighted turns the reporting feature ◊N or ◊FF.

The last line on the Remote Zone menu allows you to select whether the remote zone has the ability to control its volume level locally or is fed a fixed-level signal. Select the ◊Output Level line and press the ◀ or ▶ **Menu Control** button ◐ to choose FIXED or VARIABLE. Note that if the FIXED choice is selected, an additional line appears below, on which the ▶ **Menu Control** button will raise the level and the ◀ **Menu Control** button will lower it.

This feature will be helpful in preventing "excess" volume levels from being selected in the remote zone, or simply setting a low "background" level for that area.

Remote Zone Operation

To operate the 5.0 in the remote zone, simply press any of the six **Remote Zone Analog Input** buttons **R** under the sliding panel on the remote control. (These are the only inputs able to be sent to the remote zone. Digital sources cannot be selected.) Pressing one of these buttons will turn the 5.0 on if it was off, and feed the selected audio (and associated video) into the remote zone. If the video monitor is on in the primary zone, and the Remote Zone menu option Rem Zone Msgs is on, the status of the remote zone will be displayed on it and the front panel display until they time out. If this option has not been chosen, operation of the remote zone will not be reported to the displays in the main zone.

If the Remote Zone menu option for VARIABLE remote zone volume was chosen, the volume may be controlled by use of the **Remote Zone Volume** buttons **S**. Otherwise, the remote zone volume level is fixed. In either case, local audio may be muted by pressing the **Remote Zone Mute** button **T**; a second push will restore the audio.

When a remote zone session is complete, pressing the **Remote Zone Off** button **U** will turn of the signal feeds to the remote zone, and, if the main zone is not in use, will put the 5.0 into standby.

System Reset

There are certain circumstances under which you may wish to return entire sections of custom programming to the factory default settings. The 5.0 is sufficiently flexible to allow four different types of reset. The first three reset only the (surround) Modes, Programs and Calibration Parameters (speakers setup details). The fourth is a System reset, returning **ALL** user modifications to original factory settings.

The first three choices are:

- Reset Modes — Select this if you wish to make many changes to the Customer or Party Surround modes, starting from the original settings.
- Reset Programs — If you wish to reset the Program choices to the original settings.
- Reset Calib Params — This would be used if you are moving your loudspeakers, or are changing (or adding) loudspeakers.

The last choice, System Reset may cure abnormal system or display operation due to erratic operation of the system's memory or microprocessor. Before attempting a system reset, try turning the 5.0 off using the **Master Power** button **1**. After pushing this button so that it returns to the "out" position, unplug the 5.0 from the wall outlet for at least three minutes, then reconnect the plug, push the **Master Power** button **1** on, and see if the problem has been corrected. If not, a System Reset may correct the problem.

To use any of the reset functions, press the **Menu** button ❶ to make the `Main Menu` appear. Press the ▼ **Menu Control** button ❶ eight times, and the `System Reset` will be highlighted. Press the ▶ **Menu Control** button ❶ to enter the `System Reset` menu (Figure OSD-32).

```
        System Reset
<- Main Menu <-
Reset Modes              ->
Reset Programs           ->
Reset Calib Params       ->
Reset Systems            ->
System Edit      UNLOCKED
```

Figure OSD-32

Press the ▼ **Menu Control** button ❶ to select the reset mode you wish to use. Note first, however, the wording on the bottom line. This line, `System Edit`, allows you to "lock" the system so that no reset mode may be accidentally invoked. Locking and unlocking the reset modes is accomplished simply by pressing the ▼ **Menu Control** button ❶ to highlight the `System Edit` line, and pressing either the ◀ or ▶ **Menu Control** buttons ❶ to change from one state to the other. When the line reads `System Edit - LOCKED`, it is not possible to highlight, or select, any choice but `System Edit` (to unlock, if desired), or the top line, which indicates how to return to the `Main Menu`.

When the bottom line reads `System Edit - UNLOCKED`, you may highlight any of the reset modes, then press the ▶ **Menu Control** button ❶ to go to the next screen which is simply a warning that if you now press `MENU` you will lose all information you have programmed in that part of the 5.0's setup, and will revert to factory-set default data. (The fourth choice, `Reset System`, resets all user-input data to defaults.) These warning screens are illustrated in Figures OSD-33, OSD-34, OSD-35 and OSD-36.

```
    !!! WARNING !!!
    Resetting Modes
  will erase all user
  Modifications to any
and all Surround Modes

   Press MENU to RESET
   Press CANCEL to Exit
```

Figure OSD-33

```
    !!! WARNING !!!
  Resetting Programs
will erase all user
   Modifications to
any and all Programs

  Press MENU to RESET
  Press CANCEL to Exit
```

Figure OSD-34

```
    !!! WARNING !!!
Resetting Calib Levels
will set Speaker Setup
and Calibration Levels
   to Factory Default
         Values

  Press MENU to RESET
  Press CANCEL to Exit
```

Figure OSD-35

```
    !!! WARNING !!!
    Resetting System
      will erase ALL
    user Modifications
       to this unit

  Press MENU to RESET
  Press CANCEL to Exit
```

Figure OSD-36

Note: This would be a good time to record the present system settings using the worksheet provided in Appendix B.

At this point, if you have decided NOT to complete the reset action, you may press the Cancel button G and return to the previous menu.

To proceed with the reset you have selected, simply press the **Menu** button H and a screen (Figure OSD-37, OSD-38, OSD-39 or OSD-40), depending on the type of reset selected will appear, indicating that the reset has been accomplished.

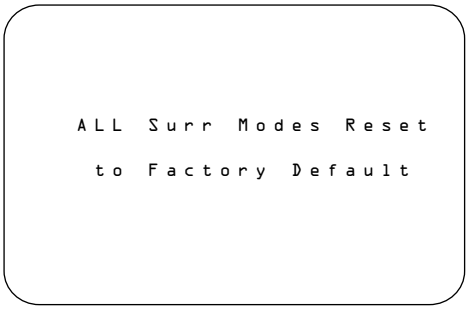


Figure OSD-37

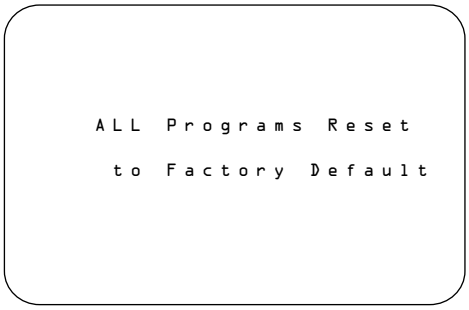


Figure OSD-38

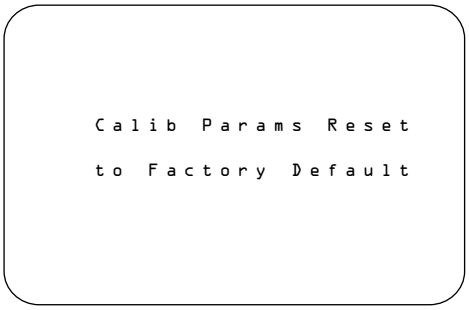


Figure OSD-39

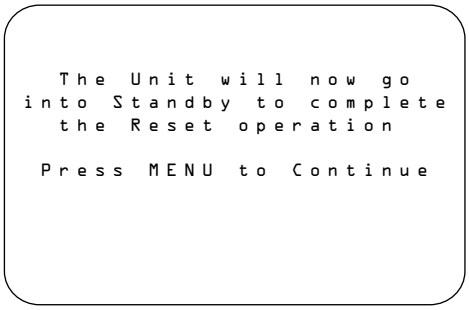


Figure OSD-40

If you have selected either `Modes`, `Programs` or `Calib Params` to reset, you will automatically be returned to the `System Reset` menu after a few seconds, from which you may exit by pressing either the **Menu** button H or the ◀ **Menu Control** button I.

If you have selected `System Reset`, figure OSD-40 (above) will appear, instructing you to press the **Menu** button H, at which time the unit will go to Standby, completing the resetting of all parameters. When the 5.0 is next turned on, it will operate as it did when it was first installed in your system.

Troubleshooting Guide

The Citation 5.0 is designed for trouble-free operation. In normal use, most users will not encounter any problems with the unit. However, as with any sophisticated electronic device, there may be occasional problems on initial installation or during the life of the unit. The items on this list are a brief guide to the minor problems that you may be able to correct yourself. If these solutions do not rectify a problem, or if the problem persists, contact your dealer or installer.

Problem	Diagnosis	Troubleshooting Hints
No front panel lights when the master power button is pressed.	• No AC power. • Master power button in off position	• Make certain that AC power cord is firmly connected to a live outlet. • Check to see if outlet is switch controlled. • Check position of front panel **Master Power** button.
Display lights, but no sound is heard from any channel.	• Intermittent connections • Mute is engaged • Amplifier is off	• Make certain connections to source equipment and amplifiers are secure. • Press the **Mute** button. • Turn on amplifier and/or check trigger connections.
Unit does not respond to remote commands.	• Weak batteries in remote • Remote sensor is obscured	• Change all remote batteries. • Make certain front panel sensor is visible.
Amplifiers connected to the trigger output cycles on and off.	• Connection problems	• Make certain that jack used is a 1/8" MONO mini jack, not a stereo jack. • Check to see that jacks are firmly seated. • Check amplifier switch settings.
On-screen menu distorts.	• Video adjustments required	• Contact your dealer or installer.
Distortion in all channels.	• Incoming signal too high	• Adjust output of external source component.
Bass seems weak.	• Subwoofers out of phase • Low subwoofer level • Incorrect cabinet placement	• Check or reverse phase of subwoofer connections. • Change location of subwoofer speakers.
Audio signals distort for analog inputs.	• Input level too high	• Adjust input level to proper reference (see page 38).

Appendix A
Factory Presets

The following charts indicate the status of the various inputs and modes in the Citation 5.0 when it is shipped from the factory. These baseline settings will help you to understand how the different features and options are matched together to form operating conditions.

Using the option and condition sets shown as a starting point, you may customize many aspects of the 5.0 to suit the acoustical requirements of your listening space, the type of equipment installed in your system or your personal listening preferences. Contact your dealer or installer if you have any questions concerning how to customize your system.

When you create customized settings for the 5.0 it is a good idea to record the finalized installation using the Setup Description Worksheets provided in this manual. That will enable you to re-create your desired installation and setup should the memory in the 5.0 be lost or reset for any reason. It is always a good idea to document your installation so that there is a written record.

Note that the settings shown in this Appendix may be restored at any time by using the reset functions available in the System Setup menu (see page 59).

SYSTEM PRESETS

Front Left/Right Speakers	Small
Center Speaker	Small
Surround Speakers	Small
Surround Configuration	Dual Drive
Subwoofers	Stereo
L/C/R Seating Distance	10 Feet
Surround Seating Distance	5 Feet
Settings	Unlocked
Video Out	Composite

SYSTEM OPTIONS SET

OSD Position	Bottom
Video Standard	NTSC*
IR Mode	Front
Power-On Volume	03
Mute Volume	00
Triggers 1 and 2	Main
Power	On
Mute	Off
Display Dim	Off

Note: *Video System is set for NTSC on units shipped to North America.
Video System is set for PAL on units shipped to 230V countries.

WATCH INPUT PRESETS

Input Source	Input Name	Mode	Input Level	Auto Balance	Video Background	Projection Screen	Video Input
Analog Input 1	LD Anlg	6 Axis	Auto	On	Video	Manual	Composite
Analog Input 2	VCR	6 Axis	Auto	On	Video	Manual	Composite
Analog Input 3	SAT Anlg	6 Axis	Auto	On	Video	Manual	Composite
Digital Input 7	LD Digi	Dolby Digital	N/A	N/A	Video	Manual	Composite
Digital Input 8	SAT Digi	Dolby Digital	N/A	N/A	Video	Manual	Composite
Digital Input 9	DVD Digi	Dolby Digital	N/A	N/A	Video	Manual	Composite

LISTEN INPUT PRESETS

Input Source	Input Name	Mode	Input Level	Auto Balance	Video Background	Projection Screen	Video Input
Analog Input 4	TUNER	6 Axis	Auto	On	Blue	N/A	Composite
Analog Input 5	CD Anlg	6 Axis	Auto	On	Blue	N/A	Composite
Analog Input 6	TAPE	6 Axis	Auto	On	Blue	N/A	Composite
Digital Input 10	CD Digi	Dolby Digital	N/A	N/A	Blue	N/A	Composite
Digital Input 11	CD Chg	Dolby Digital	N/A	N/A	Blue	N/A	Composite
Digital Input 12	AUX	Dolby Digital	N/A	N/A	Blue	N/A	Composite

ANALOG INPUT MODE MAP (Default Settings)

	6 Axis	Pro Logic	Party	Cust 1 Rock	Cust 2 70mm	Cust 3 Class	Jazz	Movie 2	Movie 3	Music 2	Music 3	Stereo	Mono
Back Level	Ref	–3	Ref	Ref	Ref	–3	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Filters	Shelf	7kHz	None	Shelf	12kHz	7kHz	None	None	None	None	None	None	None
Logic Speed	High	High	N/A	High	High	Slow	High	High	High	High	High	N/A	N/A
F/B Delay	0	10 ms	0	0	5 ms	30 ms	0	0	0	0	0	0	0
Bass EQ	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Panorama	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
High EQ	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Surround	PS	DIF	DIF	PS	DIF	DIF	PS	DIF	PS	DIF	PS	Off	Off

DIGITAL INPUT MODE MAP (Default Settings)

	Dolby Digital	DTS	Digital Pro Logic	Classical	Late Nite 1	Late Nite 2	Late Nite 3	Late Nite 4
Back Level	Ref	Ref	–3	Ref	Ref	Ref	Ref	Ref
Logic Speed	None	None	None	None	None	None	None	None
F/B Delay	0	0	10 ms	0	5 ms	5 ms	0	5 ms
Bass EQ	Off	Off	Off	Off	Off	Off	Off	Off
Panorama	Off	Off	Off	Off	Off	Off	Off	Off
High EQ	Off	Off	Off	Off	Off	Off	Off	Off
Surround	PS	PS	DIF	DIF	PS	PS	PS	PS
LFE	Yes	Yes	Yes	No	Yes	Yes	Yes	No

Note: Some options shown above are dependent on configuration choices, and may not appear if your configuration has been changed from factory presets.

Appendix B
User Worksheets

As you become familiar with the capabilities of the Citation 5.0, you may make some changes to the factory configuration. The Worksheets provide a means for you to record the new settings so that they are available for reference.

Recording the settings will also make it possible to re-create settings that may be lost due to system resets or equipment malfunctions.

SYSTEM PRESETS

Front Left/Right Speakers	
Center Speaker	
Surround Speakers	
Surround Configuration	
Subwoofers	
L/C/R Seating Distance	
Surround Seating Distance	
Settings Lock	
Video Out	
Owner Name	

OPTIONS SETTINGS

OSD Position	
Video Standard	
IR Mode	
Power-On Volume	
Mute Volume	
Triggers 1 and 2	
Power	
Mute	
Display Dim	

SOFTWARE VERSION

The software version for this unit is: _____

WATCH INPUT PRESETS

Input	Name	Mode	Level	Auto Balance	Video Background	Projection Screen	Video Output
Analog Input 1							
Analog Input 2							
Analog Input 3							
Digital Input 7							
Digital Input 8							
Digital Input 9							

LISTEN INPUT PRESETS

Input	Name	Mode	Level	Auto Balance	Video Background	Projection Screen	Video Output
Analog Input 4							
Analog Input 5							
Analog Input 6							
Digital Input 10							
Digital Input 11							
Digital Input 12							

CUSTOM MODE SETTINGS

	Custom 1	Custom 2	Custom 3
Mode			
Bass EQ			
Filters			
Surround Level			
Center Level			
Surround Delay			
Panorama			

Service Information

If your installation has followed the suggestions in this manual you should enjoy many years of trouble-free operation and high-quality listening enjoyment. If you suspect a problem that may require service assistance, contact your dealer. The Citation 5.0 does not contain any user-serviceable parts.

It is important that any repairs be carried out only by an authorized Citation service agent to assure proper service and to preserve the protection of your Limited Warranty. It is a good idea to keep your sales slip or receipt in a safe place with this manual so that it will be available to verify the purchase date for warranty claims.

Fuses

The Citation 5.0 uses internal fuses to protect it from damage. In the event that a fuse replacement is required, make certain that a fuse of the original rating is used. Contact an authorized Citation service agent for assistance with fuse replacement.

Specifications

Audio Inputs	6 Digital: 4 SPDIF (RCA-Type), 2 TosLink (optical) 6 Analog RCA pairs
Video Inputs	6 Composite video, 2 S-video PAL/NTSC
Audio Outputs	Stereo Remote Zone and Record, Main Room L, C, R, L and R side, L and R Surround, Stereo Subwoofers, Mono Subwoofer
Video Outputs	Composite: Main, Aux, Remote Zone, Record S-video: Main, Aux, Remote Zone, Record
Level/Impedance:	Audio: 5V rms, 500 ohms Video: 1V p/p, 75 ohms
Frequency Response:	Main Front Channels: 5Hz – 50kHz +1, –3dB, Ref. 1kHz Surround Channels: 5Hz – 20kHz (full range mode) +1dB, –3dB, Ref. 1kHz Subwoofers: 5Hz – 100Hz (18dB\Octave)
S/N Ratio:	90dB minimum, A weighted, Ref. 1kHz @ 1 Vrms
Setup/Calibration:	On-screen programming via remote
Trigger Outputs:	Two programmable
Remote IR-Sensor Input:	One programmable
Power Requirements:	North America: 120 VAC, 60Hz, 75 watts maximum Export: 230 VAC, 50Hz, 75 watts maximum CE approved
Decoding:	Dolby Digital and DTS decoding using leading-edge technology. DTS decoding is optional. 6-Axis signal processing first introduced in the Citation 7.0 creates an enveloping 5.1-like soundfield from conventional stereo encoded and non-encoded program sources.
Dimensions (H x W x D): (includes feet and jacks)	4 x 17-½ x 15 inches 102 x 445 x 381 mm
Weight:	21 lbs / 9.5 kg

Figure Index

Operating the Citation 5.0 is dependent on understanding the meaning of the various on-screen menus, fron panel display messages and other status messages. To conserve space, each on-screen message generally appears only once in this manual, although many are referred to frequently throughout the manual.

The following index will help you to find any of the graphic representations of the on-screen messages when you find a reference to one on a page where the graphic does not appear.

OSD Figure	FPD Figure	Page	Description
OSD-1	FPD-1	31/32	Turn-on message and software revision data.
OSD-2	FPD-2	32	Sample “Watch” input status message.
OSD-3		32	Main menu.
OSD-4		33	Speaker Setup menu.
OSD-5		35	Speaker Distances menu.
OSD-6		35	Sound Level Calibration menu.
OSD-7		36	Current on-screen speaker indication.
OSD-8		37	Programs Setup menu for analog audio inputs.
OSD-9		39	Programs Setup menu for digital audio inputs.
OSD-10		40	System Options menu.
OSD-11		42	Program Triggers menu.
OSD-12		43	Watch Programs menu.
OSD-13		43	Listen Programs menu.
OSD-14		43	Edit Watch List menu.
OSD-15		43	Edit Listen List menu.
OSD-16		44	Turn-on message and software revision data.
OSD-17	FPD-3	45	Power-off/Standby message.
OSD-18		45	Sample “Listen” input status message.
	FPD-4	46	Watch Programs menu.
	FPD-5	46	Listen Programs menu.
OSD-19	FPD-6	47	Volume Control indication.
OSD-20		47	System Mute indication.
OSD-21		47	Volume Muted indication.
OSD-22		48	Balance Adujst screen at acoustic center of room.
OSD-23		48	Balance Adjust screen with exact offset from true center.
OSD-24		48	Trim Speaker Levels screen.
OSD-25		50	Reset screen when using the “Reset” button on the remote.
OSD-26		54	System Status menu.
OSD-27		54	Digital Mode Status display.
OSD-28		54	Digital Mode Status display for Dolby Digital.
OSD-29		55	Customize Surround Mode menu for analog sources.
OSD-30		57	Customize Surround Mode menu for digital sources.
OSD-31		58	Remote Zone menu.
OSD-32		60	System Reset menu.
OSD-33		60	System Reset Warning message.
OSD-34		60	System Reset Warning message.
OSD-35		60	System Reset Warning message.
OSD-36		60	System Reset Warning message.
OSD-37		61	Reset Accomplished message.
OSD-38		61	Reset Accomplished message.
OSD-39		61	Reset Accomplished message.
OSD-40		61	Reset Accomplished message.

Limited U.S. and Canadian Warranty

Warranty Period

Citation products are warranted for 5 years from date of original purchase.

Who Is Protected By This Warranty

Your Citation warranty protects the original owner provided that the Citation product was purchased from an authorized dealer. A copy of the original dated bill must be presented whenever warranty service is required. Please attach a copy of your bill of sale to this warranty statement and put it in a safe place.

What Is Covered

Your Citation warranty covers all defects in material and workmanship with the following exceptions. These are: (1) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (2) damage occurring during shipment (claims must be presented to the carrier); (3) damage to or deterioration of any accessory or decorative surface; (4) damage resulting from failure to follow instructions contained in your owner's manual; (5) damage resulting from the performance of repairs by someone other than an authorized Citation warranty station; (6) damage caused by the installation of parts that do not conform to Citation specifications; (7) any Citation unit on which the serial number has been effaced, modified or removed; (8) units used for other than home use. This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, or normal setup adjustments. It does not cover claims based on misrepresentation by the seller or performance variations resulting from installation related circumstances such as source quality or AC power.

How To Obtain Warranty Service

If your Citation product ever needs service, please call your authorized dealer or installer. You'll need to present a copy of your original bill of sale to establish the date of purchase. Do not return products to Madrigal Audio Laboratories without authorization.

Who Pays For What

Citation will pay all labor and material expenses for all repairs covered by this warranty. If necessary repairs not covered by this warranty, or a unit is examined which is not in need of repair, you will be charged for the repairs or examination. The owner must pay any shipping charges incurred in getting your Citation product to an authorized Citation warranty station. We will pay reasonable shipping charges to any location in the United States if the repairs are covered under the warranty. Please be sure to save the original shipping cartons, because a nominal charge will be made for additional cartons.

Limit On Implied Warranties

Implied warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty, unless otherwise provided by State law.

Exclusions of Certain Damages.

Citation's liability is limited to the repair or replacement, at our option, of any defective product and shall in no event include incidental or consequential damages of any kind. Citation reserves the right to replace a discontinued model with a comparable model. Any replacement units or parts may be new or rebuilt.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty is applicable in the United States and Canada only. Outside of the U.S. and Canada, please contact your local authorized Citation distributor for warranty and service information.

Citation

Madrigal Audio Laboratories, Inc.
P.O. Box 781
Middletown, CT 06547
Manufactured in USA

Part # 502-02038-00

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